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THE BATTLE OF JUTLAND

MAJOR JOHN H. GURTCHEFF 84-1110

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AUTHOR(S) MAJOR JOHN H. GURTCHEFF, USAF

FACULTY ADVISOR MAJOR JEFFREY J. POLLES, ACSC/EDOWD

SPONSOR MAJOR JOHN W. DOROUGH, ACSC/EDCJ

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20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

Presents a battle analysis which will be used in developing programs of instruction for use at Air University.

Chapter I consists of a battle description and general outcome of the battle
Chapter II analyzes the battle compared to AFM 1-1 principles of war
Chapter III provides a guided discussion format for instructional use.

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ABOUT THE AUTHOR

Major Gurtcheff is a 1969 graduate of Rutgers University where he received a B.A. degree in American Civilization. He received his commission at O.T.S. where he was a distinguished graduate. He attended undergraduate pilot training and has served in various capacities as a KC-135 instructor pilot, including Strategic Air Command's Combat Crew Training School. Major Gurtcheff holds an M.P.A. from Golden State University (San Francisco, Ca.) and is presently attending Air Command and Staff College. Upon graduation, he will join the faculty at ACSC.

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PREFACE

> There exists a small number of fundamental principles of war, which may not be deviated from without danger, and the application of which, on the contrary, has been in all times crowned with glory.
>
> Jomini: Precis de L'Art de la Guerre, 1838 (16:3)

Jomini's statement, now almost 150 years old, represents the opinion of many military theorists spanning the course of hundreds of years. Although the "principles of war" vary slightly from country to country, and even from service to service, their importance is not diminished simply because of the various forms in which they appear. Great military leaders of our era continue to adhere to these principles. The respect given these principles was perhaps best summarized in 1962 by Gen Curtis E. Lemay:

> For centuries, successful national military strategies have been based on principles of war learned in equally as many centuries of military experience. Those lessons came hard; and at great cost in lives and gold, and in national power....These principles of war...have been successful for 2500 years. We ignore them at our peril (17:5-8).

The United States Air Force officially recognizes the principles of war and incorporates them into official doctrine in Air Force Manual 1-1. These principles are objective, offensive, surprise, security, mass, economy of force, maneuver, timing and

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tempo, unity of command, simplicity, logistics, and cohesion. The manual makes a clear statement of their importance to Air Force doctrine and to an understanding of warfare.

> Aerospace doctrine flows from these principles and provides mutually accepted and officially sanctioned guidelines to the application of these principles in warfare....The principles of war are an important element in the art and science of warfare....Put in perspective, the principles of war help provide a better understanding of warfare... (18:2-5).

In essence, a better understanding of warfare is what this paper is all about.

The purpose of this paper is to describe and analyze, in the context of the AFM 1-1 principles of war, the Battle of Jutland. This great naval battle, fought between the fleets of Great Britain and Germany, was the only naval battle in World War I in which the entire fleets of both countries met head on. The stake? "...absolute control of the seas and on this control hinged ultimately the issue of the world war" (7:19). It is my contention that because of the importance of this battle, its scope, and its outcome, the Battle of Jutland provides an excellent medium for a review and study of the principles of war.

In fulfilling its purpose as stated in the paragraph above, this paper is divided into three chapters. Chapter One is a

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description of the Battle of Jutland including the events that led up to it and its outcome. Chapter Two is an analysis of the battle in the context of the principles of war as listed in AFM 1-1. In this chapter each principle will be reviewed followed by an analysis of the battle to pinpoint how each side applied--or failed to apply, the particular principle in question. In the final chapter, a series of discussion questions will be presented to provide the basis for a seminar-style group discussion of Jutland, and how the principles of war were applied in that epic battle. In order to provide a basis for such discussion, let's now turn to a description of the battle, the outcome of which sparked resentment in England even before the British fleet returned to port, and is controversial even to this day.

Chapter One

THE BATTLE OF JUTLAND

INTRODUCTION

When the British fleet returned from the Falklands in July 1982, it was greeted with a tumultuous display of graditude and affection. The fleet, although not the preeminent world naval power that it once was, had preserved again the honor of the once mighty, but now-dwindled, British Empire. There are those who believe that the first indications of the decline of that empire (and fleet) were evident sixty-six years earlier at the Battle of Jutland (10:144). When the fleet returned from that battle, it too was greeted with a tumultuous display, but hardly one of affection. In fact, Vice-Admiral Beatty's flagship, the battle-cruiser Lion, was "booed" and "jeered at" by dockyard workmen as she slipped into her berth after the battle (12:250). Why such a negative reception? Why did a country so enamored with its fleet turn against it in the wake of its greatest battle? This chapter will answer that question by describing the Battle of Jutland, the events that led up to it, and its outcome.

PART I: THE ARMS RACE

> Of all reasons advanced for the First World War one is not disputed, Germany's decision to challenge the sea power upon which Britain counted for security from invasion and to protect her Empire and her trade (2:17).

The Battle of Jutland was the major naval engagement of World War I. It was fought during the late afternoon of May 31st and the early morning of June 1st, 1916, in the North Sea off the

coast of Denmark (Jutland). It was the only battle during the entire war in which the main fleets of both Great Britain (the Grand Fleet) and Germany (the High Seas Fleet) met in direct combat. The scope of the battle is staggering--over 250 combat ships and 100,000 men were involved. The battle was the culmination of years of preparation and posturing on both sides. In order to fully appreciate and understand the battle, some sense of this history must be given. Therefore, in order to set the stage, I'll present for the British, and then the Germans, the pertinent history, strength, strategy, tactics, and psychology of the navies which met so gallantly on that last day of May in 1916.

Until the Battle of Jutland, the Royal Navy had not been seriously challenged since 1805 when Admirals Nelson and Collingwood defeated the combined armadas of France and Spain at Trafalgar. Thus, for a period of over 100 years, the Royal Navy had been allowed to rest on Nelson's laurels. This lack of challenge had led to an organization that "...by the turn of the century though numerically a very imposing force,...was in certain respects a drowsy, moth-eaten organism" (2:20). Meanwhile, a hundred years of technology had vastly changed the weapons of naval warfare and had created new capabilities and threats.

First and foremost among these changes was a tremendous transformation in the "ship of the line." From 1850 to 1900, sail gave way to steam as the means of propulsion and by 1900, the entire Royal Navy was steam-driven. Iron balls were replaced by rifle-fired, explosive projectiles capable of being hurled

thousands of feet and of piercing even the new armor-clad, steel hulls. The development of mines and torpedoes added a new dimension of threat--and worry, for the commanders of these great new ships. Perhaps the most heralded innovation came in 1906, with the launching of Dreadnought, the first in a class of radically new battleships. Unique because of its design as an "all big-gun ship," she carried ten 12-inch guns, was turbine driven, and could achieve 21 knots. From what had preceded her, this ship was so revolutionary that "...horrified critics exclaimed that she...(would)...render all existing ships obsolete" (10:13). The Dreadnought led to the Queen Elizabeth and its class of fast "super-dreadnoughts," the first oil-fired British ships, capable of 24 knots and equipped with eight "unprecedented" 15-inch guns.

Instrumental in the development of Dreadnought and architect of a new Royal Navy after 1905, was former admiral, First Sea Lord, Jacky Fisher. Acutely aware of both the hidden weaknesses of the British Navy and the growing menace posed by the rapidly expanding German fleet, Fisher worked tirelessly to revitalize his navy for the challenge he felt would surely come. Fortunately for England, many of the navy's weaknesses of 1900 had been erased by 1914, and the numerical superiority of the Royal Navy over the German Navy was maintained.

> ...thus, we have a picture of overwhelming British superiority in naval force. Without exaggeration, we can estimate their material superiority as 2 to 1;...the British had a superiority in ships nearing completion of nearly 3 to 1...in cruisers and light cruisers the superiority of the

> British was overwhelming...in destroyers, the British superiority was about the same as in capital ships...in submarines the forces were about equal...only in airships did the Germans have an advantage...(4:102-103).

British numerical superiority led to their overall naval strategy throughout the war. That strategy was to render the numerically inferior German fleet ineffective, keep it bottled-up in the North Sea where it could do little damage, and challenge the fleet when it came out of Wilhelmshaven, its home port at the mouth of the Jade River. One naval analyst describes this strategy as a "...strategic offensive...(using)...defensive tactics...having the isolation of the enemy as its objective" (5:159). The overriding factor in British thinking was to maintain naval superiority. Admiral Sir John Jellicoe, Commander-in-Chief of the Grand Fleet, knew the stakes all too well. A defeat by the High Seas Fleet would be disastrous. One naval historian describes the importance of the Grand Fleet this way:

> The British battle fleet is like the queen on the chessboard; it may remain at the base but it still dominates the game. It is the final arbiter at sea; to lose it is to lose the game....In (Winston) Churchill's words, 'The destruction of the British battle fleet was final'; Jellicoe was 'the only man on either side who could lose the war in an afternoon' (2:41-42).

Thus, although he fervently hoped for a confrontation with the Germans, the stakes were so high that Admiral Jellicoe established strict guidelines for any fleet engagement with them. He wanted to keep the risk to his fleet at a minimum, and was particularly unnerved by two of the newest weapons of naval warfare, the torpedo and the mine (10:16). This fear may very

well have cost Jellicoe a decisive victory at Jutland (12:255-256)(4:116).

By the time of the Battle of Jutland, British naval tactics had been in the making for four-hundred years. The gun was the principle weapon and Admiral Jellicoe was a gunnery specialist. The cruisers and battlecruisers were to be used for scouting and making contact with the enemy. The destroyers were to be used to protect the fleet from torpedo attacks and secondarily, inflict such attacks on the enemy. "The core of Jellicoe's concept of a battle was a gunnery dual between ships-of-the-line on similar courses" (2:57). It is interesting to note that there was an ongoing dispute among naval theorists, some favoring Jellicoe's traditional, conservative, line-of-battle approach, while others held that tactic too rigid and favored maneuver.

Although there was debate in Britain as to naval tactics, there was no debate as to the importance of the Royal Navy to Britain's way of life. As an island nation, Great Britain had come to rely on seaborne commerce for her survival. Admiral Bacon commented after the war that "Commerce is the source of national wealth. Without trade no nation can exist" (1:5). The British public expected great things of its navy, not only as the world-wide protector of the Empire and the sea-lane access to that Empire, but also as the bulwark at home occupying the "moat" which protected the British Isles from potential enemies on the Continent. But as the 19th century drew to a close, a growing threat to British security began to emerge on the other side of the North Sea.

Germany, in a quest for an empire of its own, began the development of a strong navy by passage of its 1898 Navy Law. Although a traditional military power on the Continent, without a strong navy, Germany posed little threat to the British Isles. But, with a naval counterpart to her highly respected army, the German equation for Great Britain changed dramatically. With the passage of an additional naval construction law in 1900, a naval arms race between Germany and Britain was precipitated which continued until the end of the war. But there was doubt in Britain that Germany could be successful in creating, in a relatively few years, a navy capable of challenging the Royal Navy. Yet the Germans were able to develop a significant naval force, with dreadnoughts of their own. Although they were never able to match Great Britain in numbers, and never mounted guns greater than 12 inches on the turrets of their battleships, the Germans built ships at a relentless pace and of such quality that in some areas they were more than a match for their British counterparts (5:154).

By 1914, the German Navy was a very formidable force. It possessed 20 dreadnoughts to Britain's 29, and had seven more under construction. But numbers alone don't tell the whole story. The German ships were designed for limited range operations in the North Sea. The savings in fuel weight was transferred to increased armor plate. New, wider dry-docks permitted the creation of a broader-beamed keel, improving stability and defensive capabilities against torpedoes and mines. When compared to the British battleships, the German dreadnoughts had less range and punch, but were better able to withstand

punishment (2:156-159). But it was the relative numerical strength of the opposing fleets which led to the overall German strategy for employment.

Using the strategy of a "fleet-in-being," Germany successfully kept a larger British force tied up in the North Sea as a counter to German strength. Admiral Reinhart Scheer, Commander-in-Chief of the German High Seas Fleet, "....knew that if he were to be confronted by Jellicoe's entire strength, the High Seas Fleet had little chance of survival" (10:17-18). Therefore, he chose to sortie against targets of opportunity where he could muster superior strength, while avoiding the real danger of a confrontation with the entire Grand Fleet. Here was the fundamental difference between German and British strategy, because the British sought an opportunity to bring their superior numbers to bear in a main fleet action. Not only were the fundamental strategies different, but fleet tactics were at variance as well.

The newly created German Navy was not as tradition bound as was its opponent, and was better able to make use of the emerging technology of the time. Admiral Scheer recognized the offensive potential of the torpedo and believed it as decisive as the gun. One commentator described Scheer's tactics as follows:

> His cruisers and battlecruisers had a two-fold task, to enable his battle fleet to gain contact with a part of the Grand Fleet but to avoid the whole of it. His torpedo-boats' prime duty was to execute a massed torpedo attack; beating off enemy destroyers was their secondary duty. His battleships would fight a gunnery duel if they encountered a weaker enemy force; if they met one as strong, or stronger, they would retire rapidly out of range under cover of smoke (2:58).

In conjunction with these tactics, Admiral Scheer drilled his fleet in a maneuver unknown to the Admiralty in London. This maneuver was called a "gefechtskehrtwendung" or "battle-turn," and was designed to rapidly, and simultaneously, reverse the course of each ship in his battle line if it should encounter superior hostile forces (2:113). The British had no such maneuver, and its existence indicates the psychology evident in the German Navy, in particular, a healthy respect for the Royal Navy.

There can be no doubt that German leadership was reluctant to hazard the High Seas Fleet in head-to-head action with the Grand Fleet. In the words of Admiral Scheer, the British fleet "...had the advantage of looking back over a hundred years of proud tradition which must have given every man a sense of superiority based on the great deeds of the past" (14:XI). Yet the High Seas Fleet did operate a relatively successful "guerrilla" operaton in the North Sea before Jutland, attacking allied shipping, shelling British coastal towns, and generally presenting a nuisance to British interests. Since the start of the war and for almost two years, however, a major fleet confrontation had been avoided, much to the dismay of the British population. They were spoiling for a fight and critical of their navy's seeming inability to draw out the High Seas Fleet for a real showdown. On the German side, the losses at Verdun and the general stalemated condition on the Western Front made a morale-boosting naval victory desirable. But, in keeping with German naval strategy, the engagement should not be at the expense of risking a direct confrontation with Jellicoe's entire fleet.

Thus, in the latter part of May, 1916, another in a series of limited-objective operations was planned for the High Seas Fleet. Admiral Scheer's intent in the operation was to lure a part of the Grand Fleet out of port, surprise it with U-boats on the way out to sea, and then attack it with the entire High Seas Fleet. The bait in the operation was to be Admiral Hipper's battlecruiser squadrons. They were to steam out of the Jade, well ahead of Scheer and the main force, and make themselves seen off the coast of Norway in the hopes of drawing out a portion of the Grand Fleet.

PART II: THE BATTLECRUISER ACTION

At 0200 on 31 May, 1916, Admiral Hipper led his force of 5 battlecruisers, 4 light cruisers, and 30 torpedo boats out of their anchor at Wilhelmshaven, north towards Norway. Because poor weather had prevented any aerial reconnaissance by zeppelin and the exact whereabouts of the British fleet was unknown, Admiral Scheer closely followed Hipper's forces out of anchor, but eventually allowed 50 miles to separate the two forces. Scheer's battle fleet consisted of 16 dreadnought battleships, 6 pre-dreadnought battleships, 6 light cruisers, and 31 torpedo boats. With the intent of allowing Hipper's forces to be seen and reported to the British Admiralty, the entire High Seas Fleet steamed northward, hoping to draw out and engage a part of the Grand Fleet. (See Figure 1)

Meanwhile, on the other side of the North Sea, British intelligence was frantically trying to decipher the unusual wireless activity that they had intercepted. Concluding that

some sort of significant German naval operation was commencing, the Admiralty ordered Jellicoe and the entire Grand Fleet to sea. The fleet steamed from its three bases; Jellicoe's forces from Scapa Flow in the Orkney Islands and Cromarty, and Admiral Beatty from Rosyth in Scotland. The three elements were to rendezvous the next day 80 miles west of Jutland. Steaming from these three locations, the Grand Fleet consisted of 28 battleships, 9 battle-cruisers, 8 armored cruisers, 31 light cruisers, 73 destroyers, 1 seaplane carrier, and 1 minelayer. Because the Grand Fleet had been on a four-hour alert and the decision was quickly made at the Admiralty to send them to sea based on intelligence data, the British actually were underway four hours before the Germans left the Jade.

Admiral Scheer did not know this as he steamed northward, although two U-boats and the German wireless decoding station reported British naval activity at three separate locations, including the fact that some British dreadnoughts had left Scapa Flow. Scheer did not glean from these reports, however, that the Grand Fleet had weighed anchor en masse.

> Jellicoe, he decided, was still at Scapa Flow. The German admiral went on to the northward, passed through the German minefields, and emerged into the open North Sea in ignorance of the fact that, as the fleets were steaming, a freak of destiny would bring them into identical waters late in the afternoon (10:31).

As Jellicoe steamed east towards his rendezvous point with Beatty and his battlecruiser fleet, he received an intelligence report that Scheer's flagship, Frederick der Grosse was back in port. In spite of the report, the fleet continued towards the rendezvous point, although hope was waning for an engagement with

the Germans. By 1415 on the afternoon of May 31st, with Jellicoe 65 miles north of his position, Beatty had reached the point where he was supposed to turn northeast to rendezvous with the rest of the fleet. It was during this turn that a chance contact with the most westerly elements of Hipper's forces became the first action in the Battle of Jutland. (See Figure 2)

Initially, the number and type of German ships was uncertain, and Admiral Beatty directed an immediate turn to the southeast in an effort to block any German attempt to escape. Beatty's force was formidable, and he was confident he could handle whatever he encountered. Beatty had only 6 of his battlecruisers because Admiral Hood's squadron was temporarily at Scapa Flow for gunnery practice. But as a temporary replacement, Jellicoe had sent Rear Admiral Evan-Thomas and the Fifth Battle Squadron with 4 Queen Elizabeth-class battleships, the fastest and newest in the fleet. In addition, 12 light cruisers, 29 destroyers, and the seaplane carrier Engadine rounded out Beatty's battlecruiser fleet. At 1428, while most of the British ships were maneuvering in response to the signal flags sent up by Beatty's flagship, Lion, the first shots were fired by the closest elements of the two opposing sides at a range of about 15,000 yards. In the confusion, the Fifth Battle Squadron missed the signal to turn southeast and ended up 10 miles northwest of the rest of the force, frantically trying to catch up. Beatty was to pay a heavy price for this error as the battle progressed (8:48).

Both battlecruiser fleets continued to converge with the Germans heading northwest chasing some of Beatty's cruisers and the bulk of Beatty's fleet heading northeast to intercept them. Because both fleets were spread out and at initial contact the respective flagships were 50 miles apart, neither side was aware of the true nature of the opposition. Admiral Beatty directed the Engadine to launch one of its seaplanes for reconnaissance, and the craft did complete successfully this first-ever operational mission for the fleet. Unfortunately, the report was directed to the carrier, not the flagship, so Beatty didn't know until 1530 that his opposition was Admiral Hipper and his battlecruiser fleet. When the flagships spotted each other, Hipper responded by reversing course to the southeast to lead Beatty into the trap of the jaws of Admiral Scheer and the entire High Seas Fleet. Beatty obliged Hipper and turned with him, not knowing what lay ahead. During this period, the action between the rival battlecruiser fleets became heavy.

With both Jellicoe and Scheer warned by wireless of the engagement, the battlecruiser fleets formed their battle lines and pressed into action. Because Beatty was steaming at the maximum battlecruiser speed of 25 knots, he prevented his four battleships from closing significantly, and was denied their support. The Germans opened fire on the British battle line at 1547, with the British commencing return fire at 1548. The British battle-cruisers had larger guns with longer ranges, but the visibility to the darker east was not good and they were not able to make use of this advantage. Perplexed by the British delay in firing, the German gunners found their mark early, with

the British ships silhouetted against the brighter western sky. For the next hour, the fight centered around the two battlecruiser lines steaming southeast separated by about 15,000 yards. Confusion in properly reading the signal flags hoisted on the Lion again caused problems for the British. This time, firing assignments were missed by two British battlecruisers. This left the second of Hipper's battlecruisers unfired upon for ten minutes. On this run south the Germans enjoyed much better visibility and took advantage of their superior optical rangefinders to score many more hits than the British scored on them. Conversely, the poor visibility to the east, missed firing assignments, poor range finding equipment, and most importantly--failure to take advantage of the massive firepower of the battleships, caused the British to suffer heavily. Two of Beatty's battlecruisers, the Indefatigable and the Queen Mary, were sunk while his own flagship Lion was heavily damaged by 10 major caliber hits. It's interesting to note that both British ships were sunk by shells hitting a gun turret which caused a chain reaction resulting in the magazine exploding. (See Figure 9) This sequence of events only took about a minute and was avoided on the Lion only by the order of a dying major to flood the magazine after his turret was hit (10:45). Fortunately for the Germans, they had discovered this same defect in their battlecruisers in an earlier clash with the British, and subsequently modified their ships to prevent a recurrence (2:78). While the battlecruisers were furiously exchanging salvos, Beatty's four battleships slowly came within range and began

firing on the rear of the German battle line. Although no German battlecruisers were sunk, the battleships' salvos were devastating and Admiral Beatty remained confident that the ultimate outcome would be in his favor. Then, at 1638, just after an unsuccessful torpedo attack by British destroyers, came a startling report from Commodore Goodenough, scouting ahead with his cruisers. The entire German battle fleet was steaming north towards them!

When this report was corroborated by yet another cruiser, Beatty's response became clear:

> ...Now he had to escape from overwhelming force. He also had another duty, to lead the German battle fleet north until Scheer in turn was trapped by Jellicoe's considerably superior battle fleet which was only 50 miles away (2:87).

Fifty miles to the north, Jellicoe had also received the wireless reports of the sightings and realized that the Admiralty had been wrong. An engagement between the main battle fleets was now imminent. Jellicoe increased his speed south while Beatty delayed his escape turn until he could see for himself, from the bridge of Lion, the distant shapes of the German battleships.

With the High Seas Fleet rapidly closing the distance, Beatty directed an "in succession" turn of his battle line which placed his ships in increased danger as each ship turned over the same geographical point. Fortunately for Beatty's battlecruisers, Admiral Hipper's attention was being diverted by the increasingly effective fire of the four battleships from Beatty's Fifth Battle Squadron, and the Germans did not take advantage of the situation. But the run to the south had taken its toll on the British battlecruisers--two battlecruisers sunk

and five of 16 of the remaining gun turrets out of action. The Germans on the other hand, lost no capital ships and retained 17 of 22 gun turrets in firing condition. When the British battleships turned north to follow Beatty at 1657, they were under fire from the leading elements of Admiral Scheer's battle line. Meanwhile, Beatty was racing north trying to get ahead of Hipper's forces to prevent them from sighting Jellicoe early enough to warn Scheer and permit an escape.

With Beatty speeding northward, the brunt of the action fell on the four "Queen Elizabeths" of the Fifth Battle Squadron which were being engaged by the combined forces of Hipper and Scheer's lead elements. With the setting sun now blinding the Germans, the fire from the British battleships was very effective. On the run north, the British scored 20 hits while the Germans scored 15 (2:93). Meanwhile, Beatty had outdistanced Hipper and began a turn to the northeast. In doing so he "crossed the T" of Hipper (See Fig. 8), and brought to bare the fire of all eight of his capital ships on Hipper's lead ships, forcing them into a hard turn to the east. As a result, Hipper found himself in a very dangerous situation as described by a German officer on the battlecruiser, Von der Tann:

> At the time we did not grasp the object of the enemy's manoeuvere. Actually Admiral Beatty, by completely outflanking us in spite of our highest speed, accomplished an excellent tactical manoeuvre. He accomplished the famous 'crossing the T,' compelled us to alter course, and finally brought us into such a position that we were completely enveloped (10:72).

At 1745, during the completion of this brilliant maneuver, Beatty saw the sight he had been waiting for--the first glimpse of Jellicoe's fleet steaming down upon them and the totally unsuspecting Germans.

PART III: THE BATTLE FLEET ACTION

At this point, Admiral Jellicoe had to make the critical decision of how to deploy his battleships. Steaming in six columns of four to minimize the submarine threat, Jellicoe's battle plan called for them to deploy in a single column or "battle line," on either the port or starboard wing, depending upon the position and heading of the enemy. Jellicoe delayed his decision to deploy until he knew precisely where the German battle fleet was. Inexcusably, he was not kept informed of its position. Additionally, reckoning errors on both his flagship, Iron Duke, and Beatty's, Lion, combined to create an 11-mile position error, placing Jellicoe much closer to the German fleet than he expected. In describing the deployment, Admiral Jellicoe states, "I was guided in my deployment by two factors. One was to cross the T. Two was to get the best light for gunnery...To meet both conditions I deployed on the port wing column" (10:81). "But Jellicoe had achieved more than this: He had put the British battle fleet on a course which led between the High Seas Fleet and its base" (2:106). It is important to note that an error in deploying his forces could have been disastrous. Given the conditions of low visibility and poor information, Jellicoe's decision was difficult, yet critical. Fortunately for the British it was correct, and by 1820 the deployment was complete.

It placed his battle line in the exact position he had hoped for--crossing the T of the German battle line. Now his battleships could enter the fracas that had already commenced between the lighter forces. (See Figure 3)

While his battle fleet raced south to aid Beatty, Jellicoe ordered Admiral Hood and his fast squadron of battlecruisers to surge ahead. Therefore, Hood's forces were the first to arrive in the vicinity of the German fleet. After maneuvering into the front of Beatty's four remaining battlecruisers, all seven battlecruisers concentrated fire on Hipper's five. During this exchange, Admiral Hood's flagship, Invincible, suffered the same fate as Indefatigable and Queen Mary. A heavy shell struck her "Q" turret (amidships) and the devastating chain reaction occurred again, sending Invincible to the bottom with only six crewmen surviving of the more than 1000 on board. Although the British battlecruisers paid a heavy price, their aggressive efforts paid important dividends.

> Their sacrifice was not in vain: Four of Hipper's ships were now in a worse state than the six surviving (British) battlecruisers. The Lutzow (Hipper's flagship) was so badly damaged, with a heavy list and her bow deep in the water, that as soon as the German admiral could extricate his ships by turning SW, into the enveloping mist, he called a torpedo boat alongside for himself and his staff....Only the Moltke remained fit for action, but it was the best part of two hours before Hipper could board her, rehoist his flag and recover command of his crippled squadron (2:112-113).

With the battleships of both fleets converging, the action heated up for them too.

At 1817 the British battleship Marlborough began the exchange between the rival battleship forces. Shortly thereafter, Admiral Jellicoe, on the bridge of the Iron

Duke, caught his first glimpse of the German battle fleet. (With poor visibility, he had been relying on scouting reports for all his information.) His battleships were crossing the German T and concentrating their fire on the first few "Konig class" battleships in Scheer's battle line. With the head of the German line in such a precarious position, the British battleships scored numerous hits while suffering none themselves (6:181). It was not until this time that Admiral Scheer, steaming eighth in line in Frederick der Grosse, became aware that he was up against more than Beatty's battlecruiser fleet.

> It was now quite obvious that we were confronted by a large portion of the English fleet and a few minutes later their presence was notified on the horizon directly ahead of us by rounds of firing from guns of heavy calibre. The entire arc stretching from north to east was a sea of fire. The flash from the muzzles of the guns was distinctly seen through the mist and smoke on the horizon, though the ships were not distinguishable (14:152).

At 1835, finding himself in such a precarious position, Scheer elected to retire his fleet, at least temporarily, and directed a "battle-turn" of his battle line.

The "battle-turn" was executed flawlessly and was so effective that by 1845, the entire High Seas Fleet had disappeared from British view. With the coal smoke of almost 250 ships, and mist severely limiting visibility, Admiral Jellicoe was not able to see what the Germans had done, and none of his captains who had seen it relayed the information to him. By 1850, the British guns fell silent as the Germans were nowhere to be seen. By 1855, Jellicoe realized that the Germans must have made a large turn, but he did not want to pursue too closely for fear of a German torpedo or mine attack. Instead, he altered to

a southerly heading to maintain his position between the Germans and their base. Jellicoe's cautiousness at this point in not aggressively pursuing the Germans gave them an opportunity to escape. But escape was not paramount in Scheer's mind, as his next move graphically demonstrated.

For whatever reason(s), and the reasons vary with the account, Admiral Scheer ordered another "battle-turn" at 1855, a maneuver which headed his battle line directly into the center of the British fleet. This, in fact, put Jellicoe in the position of crossing the German T for a second time. When the German ships broke out of the mist and smoke, the British had every factor in their favor and they took advantage of it. In the words of an American analyst,

> The Germans were in the most unfavorable and dangerous situation imaginable. Jellicoe enjoyed the overwhelming advantages of position, visibility, and numbers....No commander-in-chief of history could have been under such compressed tension as was Scheer during those few minutes when the fate of the world hung in the balance (4:351-355).

With his ships taking a terrible beating from the concentrated salvos of the British line, it became apparent to Admiral Scheer that he would have to extricate his fleet a second time from Jellicoe's grip. "Once again, Scheer could only save himself by precipitate retreat..." (12:183). (See Figure 4)

Therefore, at 1918, Admiral Scheer ordered a third "battle-turn" for the German fleet. Simultaneously, an all-out torpedo attack by his destroyers was ordered to cover the retreat. Additionally, and graphically illustrating the desperate position in which Scheer saw himself, he ordered his battlecruisers to "Close the enemy and ram. The ships will fight to the death"

(2:118). For the next few minutes the four remaining German battlecruisers (Lutzow had left the fight) hurled themselves toward the British line. Admiral Hipper watched his squadron from destroyer G-39, as he had not yet been able to reestablish his command. Fortunately for the German battlecruisers, Admiral Scheer revised his order from "ram" to "operate against the enemy's van" (4:355). This gave the German battlecruiser commanders some latitude and saved them from probable destruction. In the meantime, the torpedo attack by the German destroyers was commencing.

> This was the grand crisis of the battle. If the desperate charge of the four battlecruisers and the torpedo boat attack could not hold off the enemy while the German battle line turned and reformed, the last hours of daylight might witness the rout and destruction of the High Seas Fleet (12:184).

Jellicoe's response to the torpedo attack gave the German's the chance they needed.

When the German destroyers appeared out of the smoke and mist to launch their torpedos, Admiral Jellicoe responded as he had long planned for such a contingency--he turned his ships away a total of 45 degrees to minimize their exposure to the threat. Although none of the 31 German torpedoes hit their mark, there were a few very close calls. But the attack had provided cover for Scheer's retreat back into the smoke and mist. With the torpedo attack over at 1935, Jellicoe turned his fleet back towards the southwest in an attempt to regain contact with the enemy. Confusing reports as to the location of the High Seas Fleet prevented an effective pursuit, and the rival fleets fell into roughly parallel courses heading southwest, with the British

about 12 miles east of the Germans. There were minor clashes between the outlying cruisers and destroyers, but the guns of the battleships remained silent. Glimpses of ships appeared now and then through the twilight and mist, but positive identification as to friend or foe could not be made. By 2100, Jellicoe had a fair understanding of the situation, but was relatively content, and did not want to pursue an engagement at night. The British were not equipped or trained to fight at night (but the Germans were), and the short northern night of only five hours would soon pass. He would continue to block the Germans from escaping to their home port to the east, and reengage them in the morning. Admiral Scheer, however, had other ideas (2:127). (See Figure 5)

By nightfall, Admiral Scheer knew that the force he had faced was nothing less than the entire British Grand Fleet. If he allowed Jellicoe to remain between him and the safety of his home port, there would be no alternative but to face the much larger British fleet, in full daylight, on the morning of June 1st. Not willing to risk that eventuality, Scheer ordered his entire fleet to proceed directly to Horn Reefs, the entrance to a mine-swept channel to their home port at Wilhelmshaven. Unaware of each other's exact position or intentions, the two fleets proceeded on courses which would converge during the night. With his destroyer flotillas covering the rear and his cruisers and battlecruisers in the van, Admiral Jellicoe went to sleep in anticipation of the epic struggle that would surely come at daybreak, just a few hours away.

During the short night, the Admiralty deciphered German wireless transmissions which would have told Jellicoe the German plan, but these were not relayed to the fleet. This critical omission probably cost the British a clear victory. In one observer's words,

> But for the failure at the Admiralty to transmit to Jellicoe, instantly and without emendation, the wireless intelligence which had reached Whitehall from the direction-finding stations of the course Scheer was taking, his retreat would almost certainly have been cut off; Jutland, like Trafalgar, might have been a battle of annihilation... (6:X).

Scheer's forces carried out their determined escape plan, encountering the British destroyer flotillas in the darkness. Each encounter came as a surprise in the black of night, and although the destroyers were no match for the German battleships, they managed to sink one of the pre-dreadnought types, the Pommern, while taking serious losses in the process. The sad fact for the British was that not one report of the action reached Admiral Jellicoe, even though at least two of his trailing battleships observed the searchlights and firing. One destroyer signaled a battle report at least twice, but it was not received by Jellicoe aboard the Iron Duke. Admiral Jellicoe spent the night in ignorance of the fact that the entire High Seas Fleet was slipping through his grasp to safety.

When dawn came, the British were tired, but eager and ready to resume the fight. But the German fleet was nowhere to be seen. When the Admiralty reported that the Germans were nearing Horn Reefs, Admiral Jellicoe knew that the battle was over. There was nothing left to do but take stock of the damage, tend to the wounded, bury the dead, and return home. The British

dreams of what could have happened on that morning turned to frustration and bitter disappointment. For the Germans, however, the feelings were quite the opposite.

Although they suffered substantial damage and withdrew under the cover of darkness, the Germans were overjoyed that they had confronted the Grand Fleet at sea and had given more than they had taken. Arriving in port a full day before the British, the Germans proclaimed a great victory. Their generally accurate account had to be answered by the Admiralty, which put out a vague response lending credence to the German story and causing a furor in Britain. This is why the Lion was jeered at when she pulled into her slip the day after the battle. "...Jutland had extinguished the Trafalgar legacy" (10:140). But the Battle of Jutland was neither a great victory for the High Seas Fleet, as the Germans proclaimed, nor a defeat for the Grand Fleet, as the British population feared.

PART IV: THE RESULTS

In reviewing the outcome of the Battle of Jutland, one finds a mixed bag. In sheer numbers, the Germans clearly came out on top. The British lost 3 battlecruisers, 3 armored cruisers, 8 destroyers, and 6,097 men. In contrast, the Germans lost 1 old battleship, 1 battlecruiser (the Lutzow), 4 light cruisers, 5 torpedo boats, and 2,551 men (2:155). Looking at the results another way, 99 German ships sank 112,000 British tons, while 151 British ships sank only 62,000 German tons (10:143). German gunnery, particularly the optical sighting equipment, proved to be much better than the British expected. The German

ships with their heavier armor plate and wider girth proved extremely resiliant and hard to sink. Their extensive water-tight compartment system was also better than that of the British. The loss of the three British battlecruisers was due to the same defect in design, and had it been discovered and corrected prior to Jutland, the relative losses would probably have been about equal.

Even though Germany won the battle in terms of numbers, its position with respect to the British navy did not change. Only once after Jutland did Admiral Scheer venture out of port with his entire fleet seeking British ships. Scheer maintained a healthy respect for Jellicoe's larger fleet which Germany simply could not match. Perhaps the earliest correct assessment of Jutland was made in neutral America by a New York newspaper which reported, "The German Fleet has assaulted its jailor, but it is still in jail" (15:238). But the tactical results of the battle may not have been nearly as important as what the results indicated. Jutland proved the invincibility of the British navy to be a myth, and in the eyes of one British historian, indicated ominous signs for the British Empire.

> Because it seemed so indecisive, Jutland was sometimes called 'the battle that was never fought.' It was in fact one of the more decisive battles of modern history. For it was one of the first clear indications to Britain that the creator had become the curator (10:144).

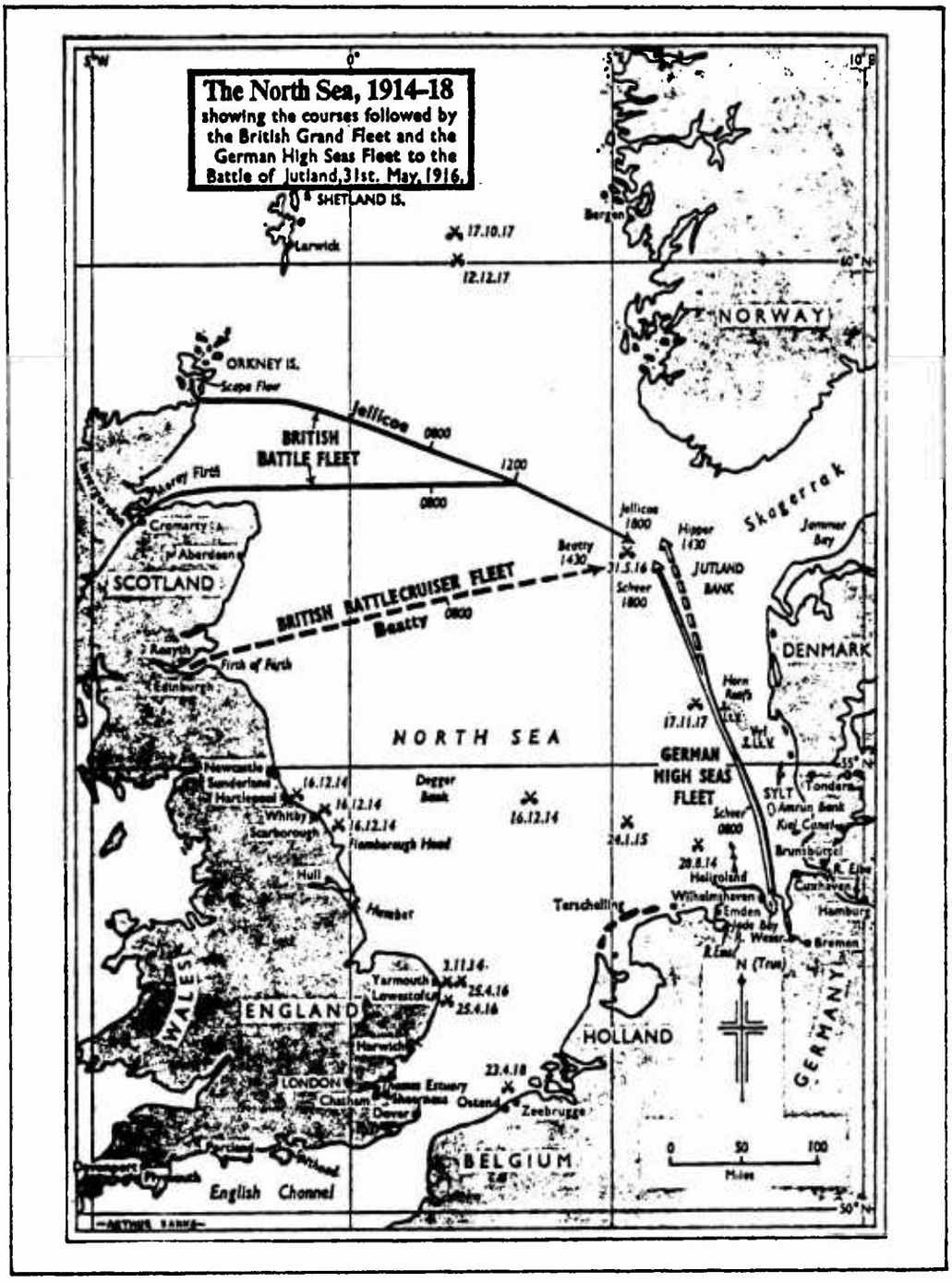

The North Sea, 1914-18
showing the courses followed by the British Grand Fleet and the German High Seas Fleet to the Battle of Jutland, 31st. May, 1916.
SHETLAND IS.
Lerwick
Bergen
17.10.17
12.12.17
NORWAY
ORKNEY IS.
Scapa Flow
Jellicoe 0800
BRITISH BATTLE FLEET
1200
0800
Moray Firth
Cromarty
Aberdeen
SCOTLAND
Jellicoe 1800
Hipper 1430
Beatty 1430
31.5.16
Scheer 1800
JUTLAND BANK
Skagerrak
Jommer Bay
BRITISH BATTLECRUISER FLEET
Beatty 0800
Rosyth
Firth of Forth
Edinburgh
DENMARK
Horn Reefs
17.11.17
NORTH SEA
GERMAN HIGH SEAS FLEET
Newcastle
Sunderland
Hartlepool
16.12.14
Dogger Bank
16.12.14
Whitby
Scarborough
16.12.14
Flamborough Head
16.12.14
24.1.15
SYLT
Amrun Bank
Kiel Canal
Tondern
Schee 0800
Brunsbüttel
29.8.14
Heligoland
R. Elbe
Cuxhaven
Hull
Humber
Terschelling
Wilhelmshaven
Emden
Jade Bay
R. Weser
Hamburg
Bremen
R. Ems
N (True)
Yarmouth
Lowestoft
3.11.14
25.4.16
25.4.16
WALES
ENGLAND
HOLLAND
Harwich
23.4.18
LONDON
Chatham
Thames Estuary
Sheerness
Dover
Ostend
Zeebrugge
GERMANY
BELGIUM
Portland
Portsmouth
Plymouth
English Channel
0
50
100
Miles
50° N

FIG. 1 (2:16)

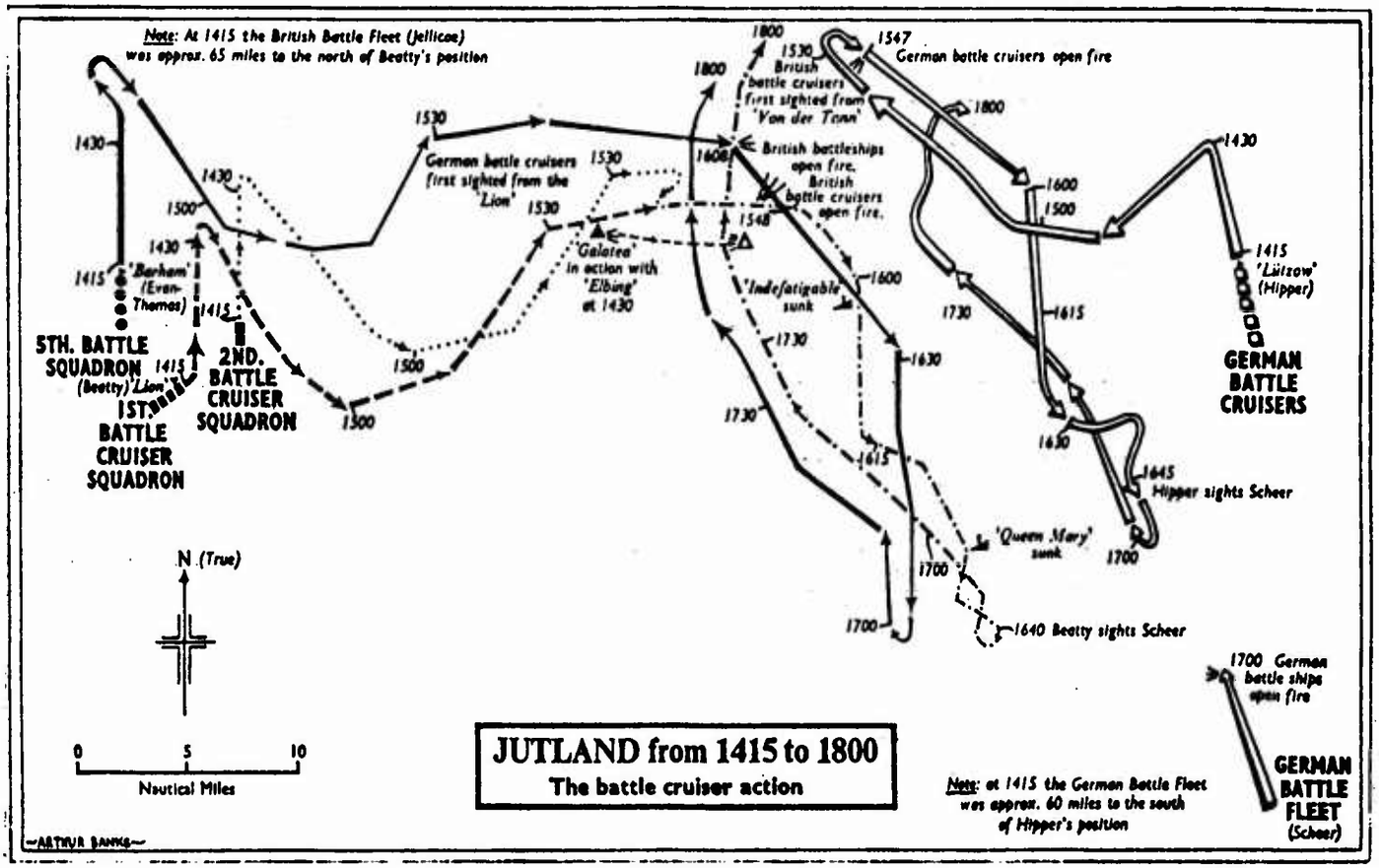

Note: At 1415 the British Battle Fleet (Jellicoe) was approx. 65 miles to the north of Beatty's position
5TH. BATTLE SQUADRON (Beatty) 'Lion'
1ST. BATTLE CRUISER SQUADRON
2ND. BATTLE CRUISER SQUADRON
'Barham' (Evan-Thomas)
German battle cruisers first sighted from the 'Lion'
'Galatea' in action with 'Elbing' at 1430
British battle cruisers first sighted from 'Von der Tann'
British battleships open fire.
British battle cruisers open fire.
'Indefatigable' sunk
'Queen Mary' sunk
1640 Beatty sights Scheer
1645 Hipper sights Scheer
1700 German battle ships open fire
1547 German battle cruisers open fire
'Lützow' (Hipper)
GERMAN BATTLE CRUISERS
GERMAN BATTLE FLEET (Scheer)
N (True)
0 5 10
Nautical Miles
JUTLAND from 1415 to 1800
The battle cruiser action
Note: at 1415 the German Battle Fleet was approx. 60 miles to the south of Hipper's position
ARTHUR BANKS

FIG. 2

(2:79)

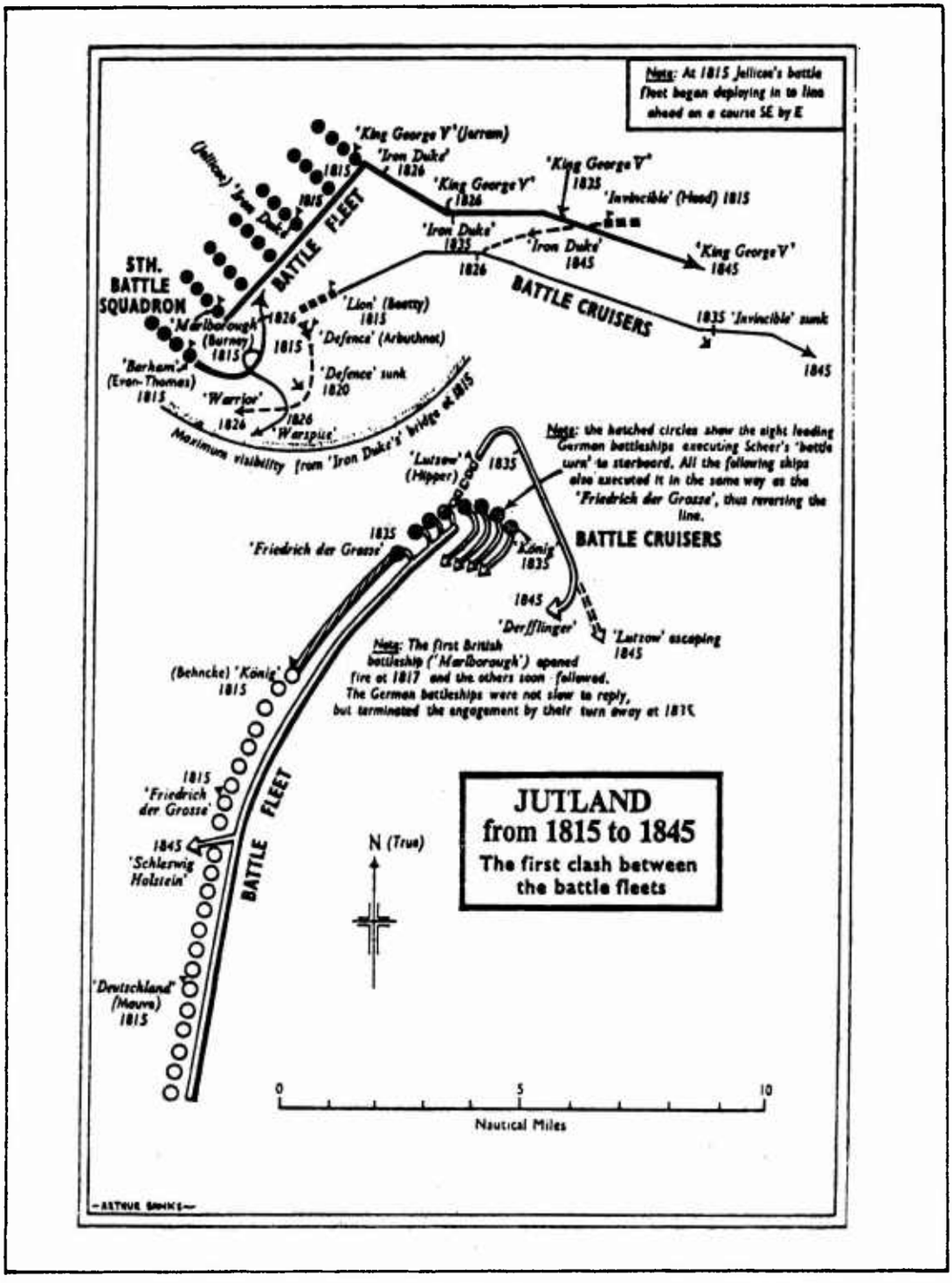

Note: At 1815 Jellicoe's battle fleet began deploying in to line ahead on a course SE by E
'King George V' (Jerram)
'Iron Duke' 1826
'King George V' 1826
'King George V' 1835
'Invincible' (Hood) 1815
'Iron Duke' 1835
'Iron Duke' 1845
'King George V' 1845
(Jellicoe) 'Iron Duke' 1815
BATTLE FLEET
STH. BATTLE SQUADRON
'Marlborough' (Burney) 1815
'Lion' (Beatty) 1815
'Defence' (Arbuthnot)
BATTLE CRUISERS
1835 'Invincible' sunk
1845
'Barham' (Evan-Thomas) 1815
'Warrior' 1826
'Defence' sunk 1820
'Warspite' 1826
Maximum visibility from 'Iron Duke's' bridge at 1815
Note: the hatched circles show the eight leading German battleships executing Scheer's 'battle turn' to starboard. All the following ships also executed it in the same way as the 'Friedrich der Grosse', thus reversing the line.
'Lutzow' (Hipper) 1835
'Friedrich der Grosse' 1835
'König' 1835
BATTLE CRUISERS
1845
'Derfflinger'
'Lutzow' escaping 1845
Note: The first British battleship ('Marlborough') opened fire at 1817 and the others soon followed. The German battleships were not slow to reply, but terminated the engagement by their turn away at 1815
(Behncke) 'König' 1815
1815 'Friedrich der Grosse'
1845 'Schleswig Holstein'
BATTLE FLEET
'Deutschland' (Moore) 1815
JUTLAND from 1815 to 1845
The first clash between the battle fleets
N (True)
0
5
10
Nautical Miles
—ARTHUR BANKS—

FIG. 3 (2:107)

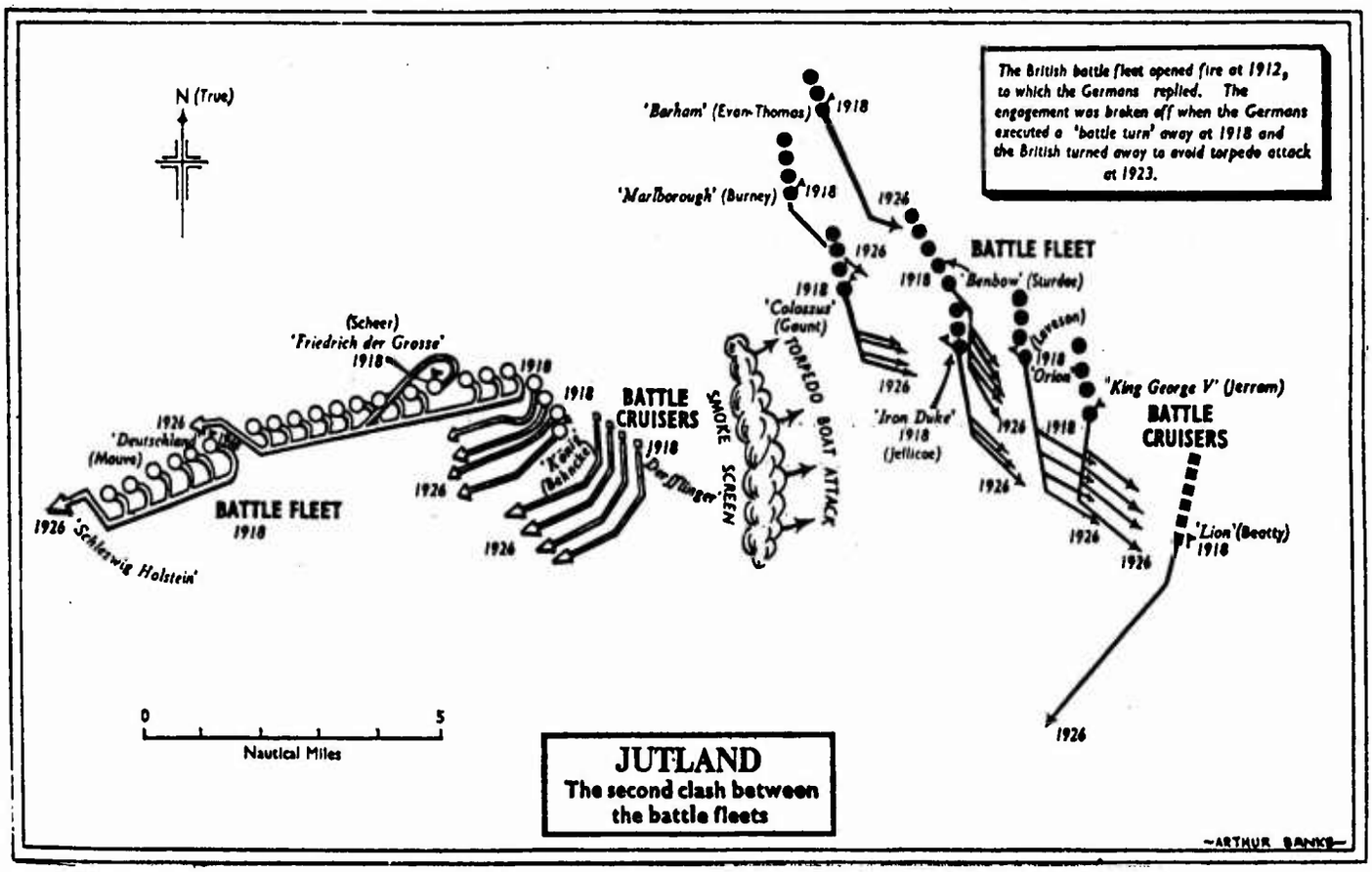

The British battle fleet opened fire at 1912, to which the Germans replied. The engagement was broken off when the Germans executed a 'battle turn' away at 1918 and the British turned away to avoid torpedo attack at 1923.
N (True)
'Barham' (Evan-Thomas)
'Marlborough' (Burney)
BATTLE FLEET
'Benbow' (Sturdee)
'Colossus' (Gaunt)
'Iron Duke' (Jellicoe)
'Orion'
'King George V' (Jerram)
BATTLE CRUISERS
'Lion' (Beatty)
(Scheer)
'Friedrich der Grosse'
'Deutschland' (Mauve)
BATTLE FLEET
'Schleswig Holstein'
BATTLE CRUISERS
'Derfflinger'
TORPEDO BOAT ATTACK
SMOKE SCREEN
0
5
Nautical Miles
JUTLAND
The second clash between the battle fleets
ARTHUR BANKS

FIG. 4

(2:117)

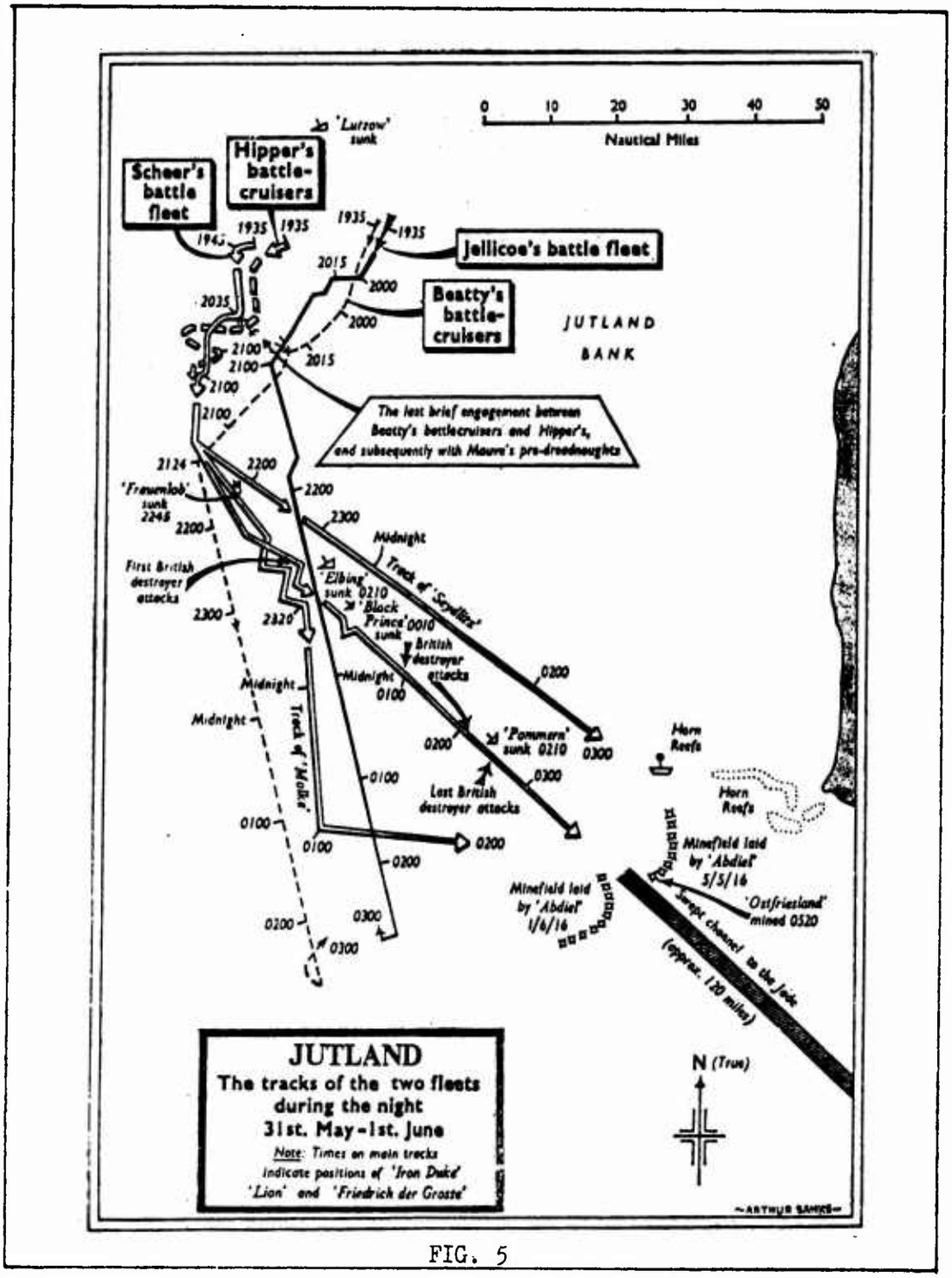

0 10 20 30 40 50
Nautical Miles
'Lutzow' sunk
Hipper's battle-cruisers
Scheer's battle fleet
Jellicoe's battle fleet
Beatty's battle-cruisers
JUTLAND BANK
The last brief engagement between Beatty's battlecruisers and Hipper's, and subsequently with Mauve's pre-dreadnoughts
'Frauenlob' sunk 2248
First British destroyer attacks
'Elbing' sunk 0210
'Black Prince' 0010 sunk
British destroyer attacks
Track of 'Seydlitz'
Midnight
Track of 'Moltke'
'Pommern' sunk 0210
Last British destroyer attacks
Horn Reefs
Minefield laid by 'Abdiel' 5/5/16
'Ostfriesland' mined 0520
Minefield laid by 'Abdiel' 1/6/16
Swept channel to the Jade (approx. 120 miles)
N (True)
JUTLAND
The tracks of the two fleets during the night
31st. May - 1st. June
Note: Times on main tracks indicate positions of 'Iron Duke' 'Lion' and 'Friedrich der Grosse'
ARTHUR BANKS

FIG. 5

(2:133)

(Iron Duke Class).

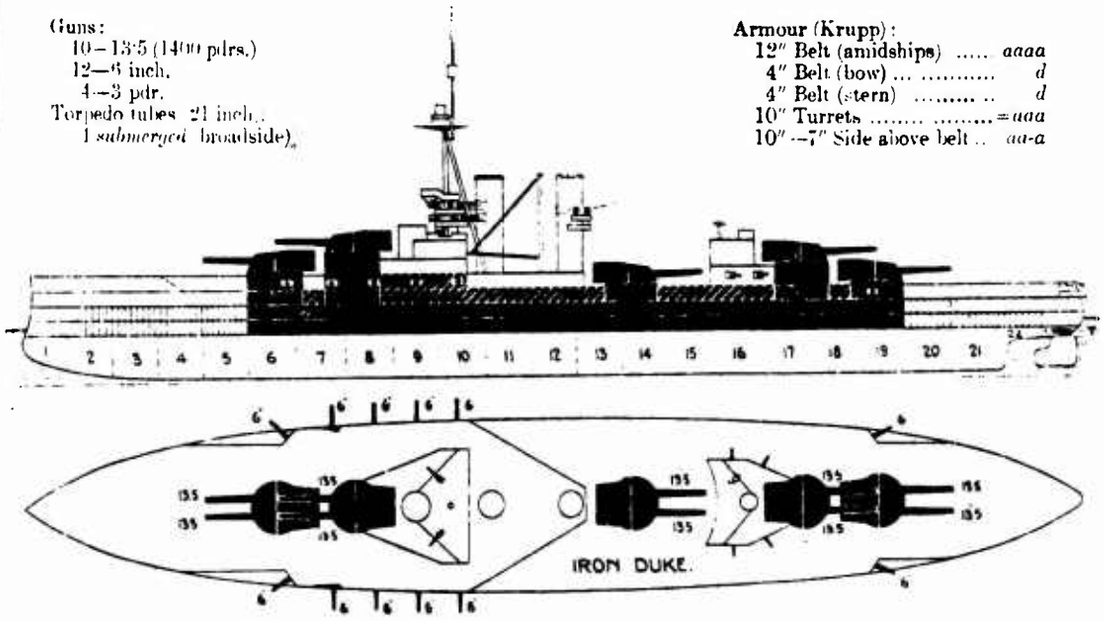
BENBOW (Nov., 1913), **EMPEROR OF INDIA** (*ex Delhi*) (Nov., 1913),
IRON DUKE (Oct., 1912), **MARLBOROUGH** (Nov., 1912).

Normal displacement, 25,000 tons. *Full load.* 26,400 tons.

Length (*waterline*), 620 feet. Beam, 89¼ feet. *Mean* draught, 27½ feet. Length *over all*, 620 feet (*p.p.* 575 feet).

Guns:
10—13·5 (1400 pdrs.)
12—6 inch.
4—3 pdr.
Torpedo tubes 21 inch.,
1 *submerged* broadside).

Armour (Krupp):
12″ Belt (amidships) ..... *aaaa*
4″ Belt (bow) ... . *d*
4″ Belt (stern) .... *d*
10″ Turrets ....=*aaa*
10″—7″ Side above belt .. *aa-a*



Machinery: Turbine (Parsons). Boilers: (see *Notes.*) Designed H.P. 30,000 = 21 kts. Coal: *normal*, 1000 tons; maximum, 2700 tons. Also oil 1000 tons).

Gunnery Notes.—Extra store of special sensitive H.E. shell.

Armour Notes.—Special protection against aerial attack, crowns to magazines, etc.

Torpedo Notes.—Submarine telephones fitted.

Name	*Builder.*	*Machinery.*	*Laid down.*	*Completed.*	*Trials.*	*Boilers.*	*Best recent speed*
Benbow	Beardmore	Beardmore	May '12	June '14		Babcock	
E. of India	Vickers	Vickers	May '12	May '14		Yarrow	
Iron Duke	Portsmouth Y	Laird	Jan. '12	Jan. '14		Babcock	
Marlborough	Devonport Y	Hawthorn	Jan. '12	Jan. '14		Yarrow	

Note. Belong to the 1911-12 Estimates.

FIG. 6 (9:34)

1909-10 GERMAN DREADNOUGHTS.

(KAISER CLASS—5 SHIPS.)

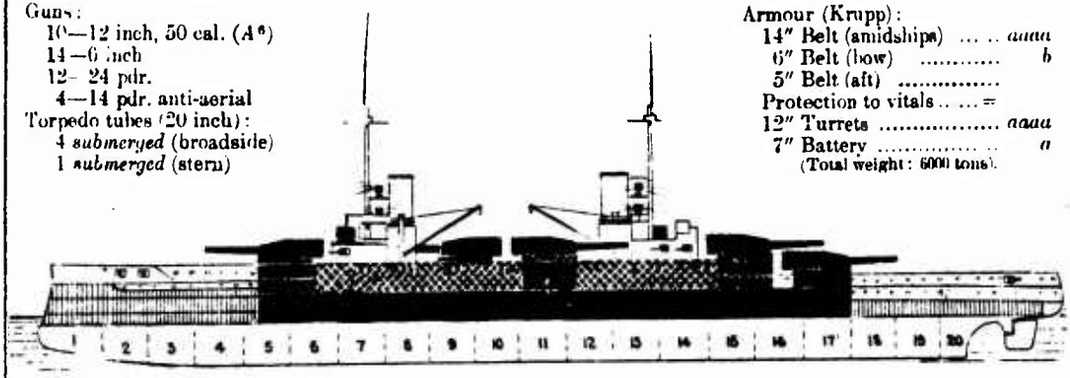
KAISER (March, 1911), **FRIEDRICH DER GROSSE** (June, 1911), **KAISERIN** (Nov., 1911), **PRINZ REGENT LUITPOLD** (Feb., 1913) & **KONIG ALBERT** (April, 1912).

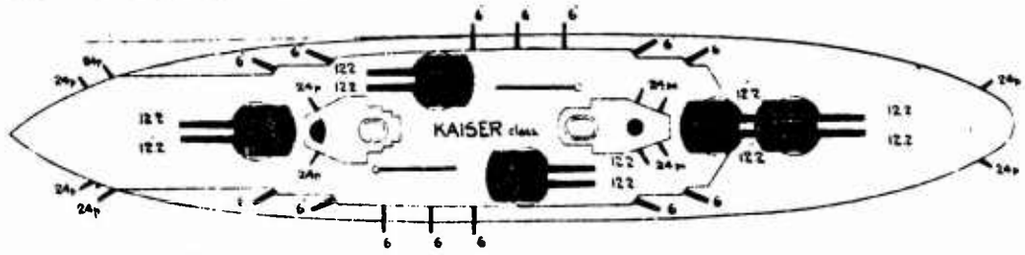
Displacement. 24,700 tons. Complement, 1088.

Length (*waterline*), 564 feet. Beam, 95¼ feet. *Maximum* draught, 27¼ feet.

Guns:
10—12 inch, 50 cal. (A^6)
14—6 inch
12—24 pdr.
4—14 pdr. anti-aerial
Torpedo tubes (20 inch):
4 *submerged* (broadside)
1 *submerged* (stern)

Armour (Krupp):
14" Belt (amidships) ..... *aaaa*
6" Belt (bow) ..... *b*
5" Belt (aft) .....
Protection to vitals ..... =
12" Turrets ..... *aaaa*
7" Battery ..... *a*
(Total weight: 6000 tons).





Machinery: Turbine (Parsons). 3 screws. Boilers: Schulz-Thornycroft. Designed H.P. 25,000 = 20 kts. Coal: *normal* 1000 tons; *maximum* 3600 tons. Oil: *about* 200 tons.

Gunnery Notes.—Fire controls on turret tops: also towers. Special improved mountings for big guns. Hoists to the 6 inch deliver 9 rounds a minute.

Torpedo Notes.—Bulkhead net defence fitted.

Armour Notes.—Under water protection consists of double longitudinal bulkheads: the outer one 2¼ inch, the inner 1¼ inch. The outer bulkhead is 9 feet away from ships side. Minute subdivision: all bulkheads solid. The upper deck is possibly armoured against attacks from aircraft, but no details are available.

Name.	*Builder*	*Machinery*	*Laid down*	*Completed*	*Trials* *Guns.*	*Trials* *mean*	*Trials* *Date.*	*Boilers*	*Best recent speed*
Kaiser	Kiel Yard		Oct. '09	Oct. '12	31,516=22·5	35,100=23·46			23·6
Friedrich der G.	Vulcan, H'b'g	Vulcan Co.	Oct. '09	Oct. '12	31,521=21·4	12·115=23·8		Schulz-Th.	
Kaiserin	Howalt	Howalt	July, '10	Aug. '13				in	
K. Albert	Schichau	Schichau	July, '10	Aug. '13				all.	
P. R. Luitpold	Krupp	Krupp	Apl '10	Aug. '13					

General Notes.—First two, 1909 programme; the others, 1910 programme. They have *four* bilge keels. The *Kaiser's* 23·6 was for one hour. Average cost, £2,100,000 per ship.

Note.—This class consists of five ships instead of the usual four. Usual anti-rolling tanks.

FIG. 7

(9:118)

"CROSSING THE T"

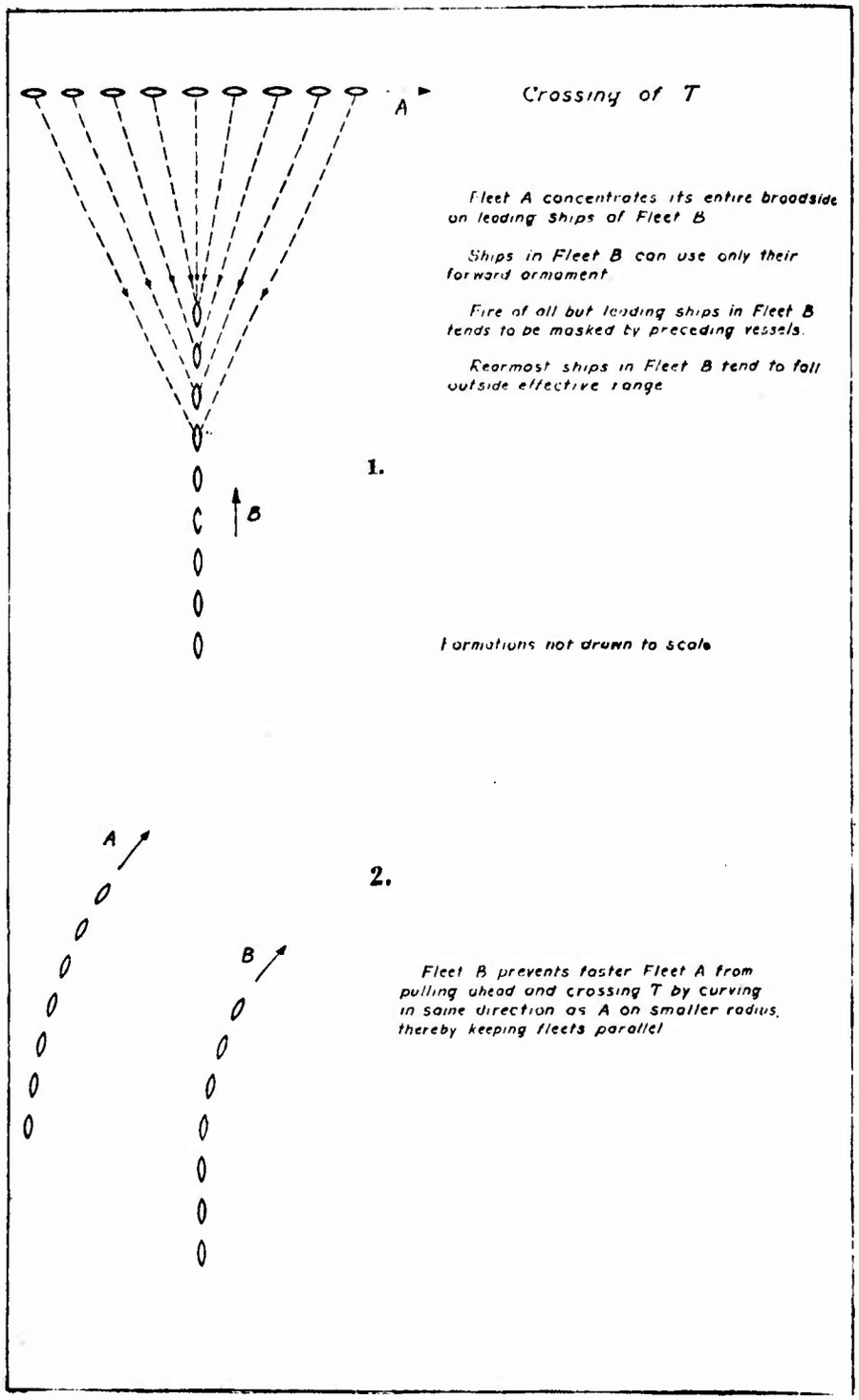
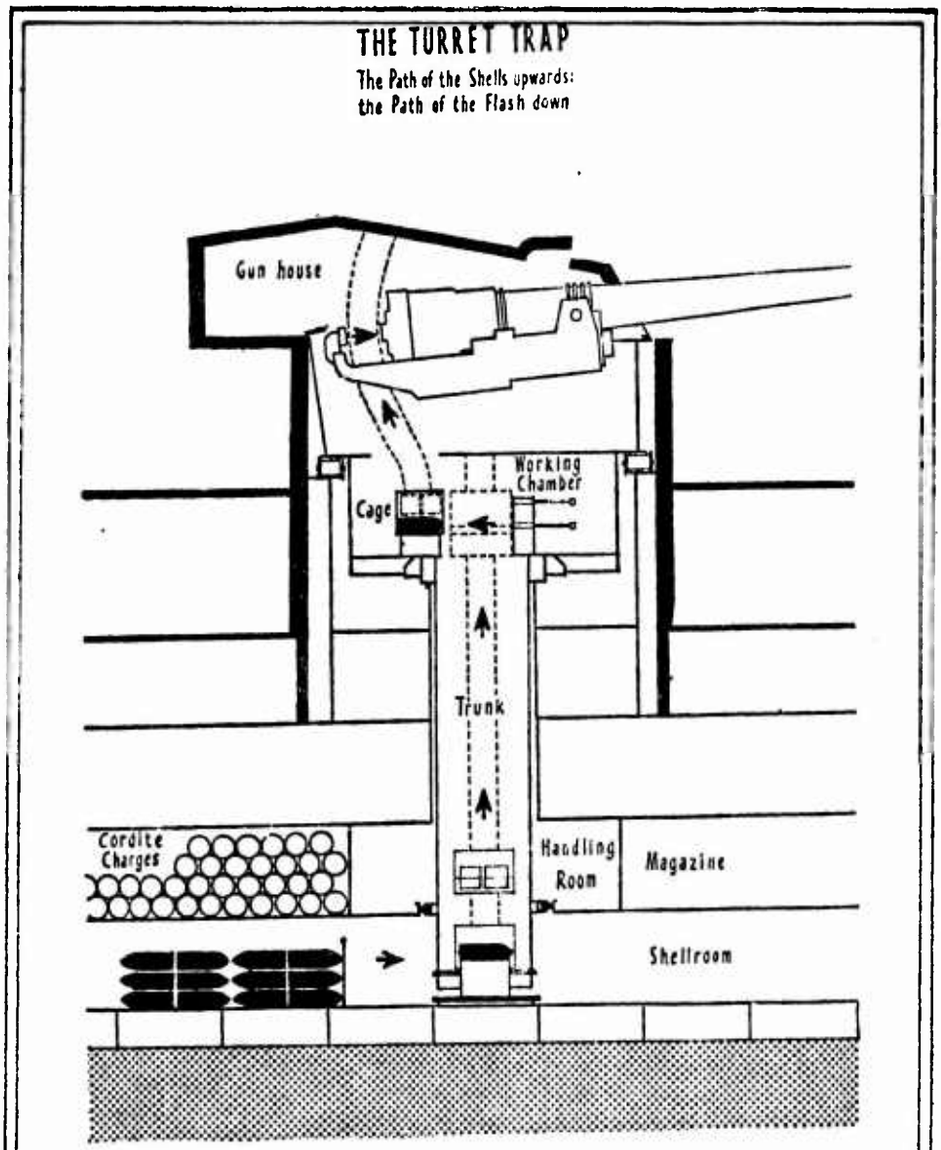


FIG. 8

(3:238)



In the Battle of Jutland, the loss of three battle-cruisers was attributed to the absence of adequate anti-flash screening between magazine and handling-room. A shell bursting in the gunhouse could ignite a chain of charges all the way down to the handling-room and magazine. The Germans had already learned by bitter experience the need for this, and lost no ships to this cause.

FIG. 9 (8:63)

Chapter Two

JUTLAND AND THE PRINCIPLES OF WAR

In this chapter, I will examine the strategy, tactics, and general conduct of the Battle of Jutland in relation to the AFM 1-1 principles of war. In presenting this analysis, I will first present the principle based on the AFM 1-1 description and then how the British and the Germans used, misused, or failed to use the principle during the course of the battle. While analyzing Jutland in this context, remember that:

> The principles of war represent generally accepted major truths which have proven successful in the art and science of conducting war....All the principles of war are interrelated and interacting elements of warfare....They are not separate and distinct entities from which a commander selectively chooses and applies to employing forces...(They) have been demonstrated to be successful in past military operations and, if disregarded, would presage a high degree of risk and possible failure....The principles of war help provide a better understanding of warfare (18:2-5).

With these thoughts in mind, I'll begin the analysis with the most important and elementary of the principles of war--the objective.

OBJECTIVE

> The most basic principle for success in any military operation is a clear and concise statement of a realistic objective. The objective defines what the military action intends to accomplish....The ultimate military objective of war is to neutralize or destroy the enemy's armed forces and his will to fight...(18:2-5).

British

"From the outbreak of the war British naval strategy was governed, rightly, by the appreciation of the fact that maintenance of sea supremacy was even more vital than defeat of

the German fleet" (11:272-273). The critical role that the Grand Fleet played in the larger struggle of World War I was fully understood by Admiral Jellicoe. Before Jutland, he stated:

> It is absolutely necessary to look at the war as a whole, and to avoid being parochial, keeping our eyes on the German fleet only. What we have to do is starve and cripple Germany, to destroy Germany. The destruction of the German fleet is a means to an end and not an end in itself. If in endeavoring to destroy the German fleet we run risks which may prejudice our success in the greater object of destruction of Germany, those risks are too great (2:173).

With these thoughts in mind, Jellicoe believed that he could not afford to put the fleet in a situation of undue risk at Jutland. His decisions to turn away during the massed torpedo attack, to not aggressively pursue the Germans for fear of submarines and mines, and to refrain from pressing the attack at night all reflect his cautious, deliberate command of the Grand Fleet. These contingencies were fully thought out by him prior to Jutland (2:38-42). Because the Grand Fleet was so critical to the overall allied war effort, he felt the consequences of a decisive naval defeat for Britain would be disastrous. "Jellicoe felt that...he was the only man on either side who could lose the war in an afternoon...and he believed it his first duty to conserve at all costs the fleet on which such enormous issues hung" (10:17). In summary, Admiral Jellicoe's command of the Grand Fleet at Jutland reflected his belief that maintaining British naval superiority was more important to the overall military objective--defeat of Germany--than a naval defeat of the High Seas Fleet. His desire to minimize risk to the fleet was

consistent with this objective. He has been criticized, however, for being overly cautious and unwilling to assume any risk in pursuit of the overall objective (4:514-516).

Germans

"The aim of German naval strategy...had been to avoid the risk of a decisive action until the British fleet was so weakened that the prospect of success veered from gloomy to fair" (11:273). However, the prospect of success never changed from "gloomy to fair." For one reason, Germany was not able to attrit the Royal Navy down to equality. The British did not employ the tactic of a close blockade of Germany, but settled for a distant blockade which kept their vulnerability to a minimum. Secondly, Britain simply continued to out-build Germany. In terms of warships, the Royal Navy was larger than the German Navy in 1916, than it had been in 1914.

Although the British frustrated overall German naval strategy, the concept of the operation that resulted in the Battle of Jutland was consistent with the overall German naval strategy of attrition. Admiral Scheer's objective on May 31st was to lure out and destroy a part of the British fleet. When he found himself confronted by the entire Grand Fleet, he fought his way home using very aggressive tactics including a night confrontation. He felt that it was better to risk the night encounter than to be trapped by a larger force in daylight. His aggressive tactics to preserve his fleet were successful and again, consistent with the overall objective of the mission.

Only Scheer's battle-turn into the teeth of the Grand Fleet seems to be inconsistent with the overall objective, and it almost cost him dearly.

To summarize this discussion, it is clear that each admiral commanded his fleet with the overall objective in mind. That the Battle of Jutland was not a decisive victory for either side is clearly the result of both Jellicoe's caution and Scheer's determination to avoid a pitched battle with superior forces.

OFFENSIVE

> Unless offensive action is initiated, military victory is seldom possible. The principle of offensive is to act rather than react. The offensive enables commanders to select priorities of attack, as well as the time, place, and weaponry necessary to achieve objectives (18:2-6).

British

That Jutland did not prove to be a decisive victory for either side is indicative of the fact that neither aggressively employed the principle of the offensive to carry the fight to the enemy. The Battle of Jutland was in essence a British reaction to a German offensive move. Once engaged, however, Admiral Jellicoe was under a self-imposed constraint to protect his fleet rather than pursue an aggressive offensive against the Germans. Jellicoe's actions at Jutland were consistent with his overall strategy as described in the previous section, "Objective." The Italian, Admiral Giuseppe Fioravanzo, characterized British actions as follows: "...it can be said that the British used defensive tactics to wage a strategic offensive having the

isolation of the enemy as its objective" (5:154). At Jutland, these tactics translated into a battle plan characterized by one expert as a "cautious offensive." He goes on to say,

> History has taught, no matter what the weapons may be, whether sailing ships with smooth bores or dreadnoughts with high power rifles, --a "cautious offensive" never gives decisive results...(7:136).

To summarize, the British, with superior forces, failed to achieve a probable "Trafalgar" at Jutland because they chose not to fight aggressively. Whether they should or should not have employed a "cautious offensive" will perhaps forever be debated in naval circles and may forever elude a definitive resolution.

Germans

Like the British, the Germans followed their pre-planned strategy at Jutland. And like the British strategy, the German "offensive-defensive" was not likely to bring about a decisive result for them, either. The initial German plan was certainly offensive in nature. But faced with superior forces, Admiral Scheer had to quickly change gears to limit the threat posed by the larger British fleet. The one notable exception to this defensive reaction was Scheer's "battle-turn" towards the British fleet, and this action has received mixed reviews from the experts. In the eyes of one,

> Having slipped out of one trap, he (Scheer) almost slipped into another one, created by his own miscalculation. He claimed in his subsequent dispatch that his idea was to strike a second blow so as to keep the initiative, and maintain German prestige. The claim is at his own expense, for no good tactician would steam into the middle of the superior British fleet for such a purpose (11:284).

On the other hand, an American observer sees merit in the maneuver and Scheer's motive.

> In our opinion, Scheer's very simplicity has deceived his critics. He was a fighting admiral, no hot-headed impetuous Nelson, but an icy, calm U. S. Grant. He believed, contrary to Jellicoe, that caution is often the most dangerous attitude. Boldness and surprise seemed to him a safer course than to run away. He was willing, contrary to Jellicoe, to leave something to chance (4:343).

But Admiral Scheer had to pay the price of his "chance." By using the offensive capabilities of his battlecruisers and destroyers, he was fortunate to extricate his battle fleet from the perilous grip of Jellicoe's battleships.

In summary, I believe it accurate to say that the Germans made more effective use of the principle of the offensive than did the British. Because they did, they achieved an impressive tactical victory. On the other hand, had the British been as offensive-minded, they probably would have achieved as resounding a victory as had Lord Nelson at Trafalgar. But Jellicoe was in a different era, and of a different mind. That the battle was not decisive was due to the combined tactics of both fleets. "With the German 'offensive-defensive' pitted against the British 'cautious-offensive,' it would have taken some stroke of fortune to bring the forces together in decisive battle" (7:136).

SURPRISE

> Surprise is the attack of an enemy at a time, place, and manner for which the enemy is neither prepared nor expecting an attack. The principle of surprise is achieved when an enemy is unable to react effectively to an attack. It is achieved through security, deception, audacity, originality, and timely execution. Surprise can decisively shift the balance of power...(18:2-6).

British

Although both sides incorporated the principle of surprise into their plans during the Battle of Jutland, the British used it to the greatest potential advantage. By effective use of command, control, communications, and intelligence, the British were able to secretly place an overwhelmingly superior force in a position to defeat the High Seas Fleet. Admiral Beatty's maneuvering with his battlecruiser fleet insured that surprise was achieved when the battle fleets met. Although the Germans were able to maneuver out of a potentially devastating position, there is no doubt that they were surprised by the presence of the entire Grand Fleet, and suffered substantial damage in the brief encounter.

Germans

Like the British, the German battle plan also incorporated the principle of surprise, and it was achieved when Admiral Beatty found his battlecruiser fleet facing the entire High Seas Fleet. Because the surprise was not complete, an avenue of escape was available and Beatty used maneuver and speed to extricate his fleet from the danger. Thus, although both sides sought to use surprise, and achieved surprise to a qualified extent, neither was able to achieve it to the degree required to place the enemy in a position from which he was "unable to respond effectively to an attack."

SECURITY

> Security protects friendly military operations from enemy activities....Security is taking continuous, positive measures to prevent surprise and preserve freedom of action. Security involves active and passive defensive measures and the denial of useful information to the enemy. Security protects friendly forces from an effective enemy attack through defensive operations by masking the location, strength, and intentions of friendly forces....Security is enhanced by establishing an effective command, control, communications network. Intelligence efforts minimize the potential for enemy actions to achieve surprise or maintain an initiative. Effective command, control, and communications permit friendly forces to exploit enemy weaknesses and respond to enemy actions (18:2-6,2-7).

British

The British made the most effective use of the principle of security in their intelligence gathering efforts. Early in the war, they had obtained a copy of the German codebook from the Russians who had retrieved it from a sunken German cruiser. With this codebook, the British were able to decipher most German transmissions. Additionally, the British made effective use of a number of wireless direction-finding stations along their coast to pinpoint the location of German ships as they transmitted. With these two capabilities, the British had a decided advantage over the Germans (4:222-223). But the system was not perfect.

Although the British obtained a wealth of useful information with these capabilities, they often failed to pass it on to the fleet in time to make a difference. This glaring inconsistency was seen at Jutland. Although the British made good use of their intelligence and sent the fleet to sea in anticipation of the German operation, they failed to pass on to Admiral Jellicoe, during the night, intercepted information which would have indicated to him that Admiral Scheer intended to escape through

the Horn Reefs channel. According to at least one analyst, this information alone could have made a difference in the outcome of the battle (6:x). Thus, although the British made use of the principle of security, they failed to optimize their use of it, and this failure may have cost them a victory.

Germans

In contrast to the British, and as can be discerned from the above discussion, the Germans made poor use of the principle of security. Although they also had an active wireless intercept and decoding effort ongoing, there is no indication that it was of any appreciable aid at Jutland. Additionally, they failed to safeguard their own messages by changing codebooks at regular intervals. Had they done so, the effect of the British having an earlier copy would have been minimized.

One instance where the Germans made good use of the principle of security occurred during the night. With both fleets so close, the Germans were able to see the British recognition signal being passed between Lion and Princess Royal. This information aided the Germans later on to slip through the British line to safety (2:136). On the whole, however, the British made much better use of the principle than did the Germans. Unfortunately, British inconsistency in applying the principle may have cost them the battle.

MASS AND ECONOMY OF FORCE

> Success in achieving objectives...requires a proper balance between the principles of mass and economy of force. Concentrated firepower can overwhelm enemy defenses and secure an objective at the right time and place. Concurrently, using economy of force permits a commander to execute attacks with appropriate mass at the critical time

and place without wasting resources on secondary objectives. War will always involve the determination of priorities (18:2-7).

British

Admiral Jellicoe's command of the Grand Fleet at Jutland displayed both principles of mass and economy of force. With respect to economy of force, we have seen how he sought to avoid parochialism. He kept the objective of defeating Germany (not the German Navy) firmly in mind and took every precaution to avoid unnecessary losses pursuing secondary objectives. Maintaining sea supremacy was his naval strategy and he never varied from it. The results at Jutland reflect his cautiousness and adherence to this strategy.

When Jellicoe went to sea that 30th of May, 1916, he took with him his entire fleet in the hopes of applying massive firepower against a weaker adversary. By doing so, he was applying the principle of mass. His attempt to "cross the T" of the Germans was the traditional answer to the problem of how best to utilize firepower at sea. If achieved, this maneuver promised to maximize friendly application of force while minimizing the enemy's ability to respond. Contrast this to Admiral Beatty's action in leaving behind his four battleships early in the fight. One critic commented about the

> ...fatal effects of Beatty's failure to concentrate his forces, his willingness to leave the Fifth Battle Squadron behind while he pushed on to action against a force that proved superior in construction and fighting ability (6:384).

Thus, we see both positive and negative instances by the British in applying the principle of mass at Jutland.

Germans

The Germans made little use of mass and economy of force at Jutland. Although their original plan involved the concept of overwhelming a smaller force, the actual damage done to Beatty's battlecruisers came from Hipper's force, not Scheer's. Beatty's losses were due more to superior German gunnery and better visibility, than to tactics. Admiral Scheer tried twice to apply the principle of mass during the engagement. The first time, when he turned his entire battle line directly at the center of the British line, he misapplied the principle and the result was almost disastrous. In order to escape from the predicament he was in, Scheer applied the principle a second time, in this case with more success. The battlecruiser "death ride" and the massed torpedo attack achieved the desired results. The German battle fleet was able to safely withdraw from the engagement.

In my opinion, the British, with the exception of Admiral Beatty's disregard for the Fifth Battle Squadron, made better use of these principles at Jutland than did the Germans. However, the British did not press their advantage and thus were not able to attain the full benefit of the potential these principles offer.

MANEUVER

> War is a complex interaction of moves and countermoves. Maneuver is the movement of friendly forces in relation to enemy forces. Commanders seek to maneuver their strengths selectively against an enemy's weakness while avoiding engagements with forces of superior strength. Effective use of maneuver can maintain the initiative, dictate the terms of engagement, retain security, and position forces at the

> right time and place to execute surprise attacks. Maneuver permits rapid massing of combat power and effective disengagement of forces. While maneuver is essential, it is not without risk. Moving large forces may lead to loss of cohesion and control (18:2-7).

British

Much has been written about naval tactics in general and the naval tactics employed at the Battle of Jutland in particular. Generally, what has been written has been criticism. For some critics, the experience of the British at Jutland proved once again that "...the centrally controlled, line-ahead gun-duel was seldom decisive..." (2:170). Others argued in favor of the single fighting-line. In fact, at the time of Jutland, a battle of theory raged between the traditionalists (Jellicoe) and those who favored maneuver and individual initiative (Beatty). Although maneuver had played a major role in England's greatest naval victory, Trafalgar, with the passing of Nelson passed the supremacy of his doctrine. After Jutland, the battle raged anew. In one observer's view, the single fighting-line,

> ...had serious disadvantages: it limited the speed of all the battleships to that of the slowest; it was rigid to the point of removing all initiative from squadron commanders; and, once adopted, it offered little chance to change tactics quickly should the enemy's movement demand it (10:16).

To a great degree, British naval tactics employed at Jutland reflected the accepted tactics of the time. However, they were rigid, unimaginative, and open to general criticism. In the descriptive words of another critic,

> The basic criticism of naval tactics during the World War (I) period is that they undermined the basis of tactics--elasticity. Moreover, the fleet fought at Jutland as a single body, as did armies in the days before Napoleon developed the system of independent divisions. Thus, however skillfully Jellicoe manoeuvered his fleet, he could not justly hope to paralyze his opponent's freedom of movement. And to pin an opponent is the vital prelude to a decisive manoeuvre...(11:294).

One can only conjecture as to the outcome had Jellicoe deployed his forces evenly on the left and right flanks, positioning them on either side of the German line. Given their superior numbers, perhaps a decisive outcome could have resulted.

Germans

Compared to the British, the Germans employed the principle of maneuver much more successfully at Jutland. Although Admiral Scheer also operated a single fighting-line of battleships as his main element, his tactics were not as encumbered at Jellicoe's. The most obvious example is Scheer's employment of the "battle-turn" which was used three times during the engagement to radically affect the course of the battle. Even though the maneuver was used twice to extricate the German Fleet from a precarious position vis-a-vis the British, and the one time it was used offensively the result was almost catastrophic for the German Fleet, the fact remains that the maneuver was effective all three times to rapidly change the posture of his entire fighting line. That the maneuver was baffling to the British and thwarted their excellent tactical position points to the effectiveness it had.

Admiral Scheer also maneuvered his lighter forces with success at Jutland. The primary example is the use of his battlecruisers and destroyers to cover the retreat of his battleships during the second "battle-turn" away from the British line. Although the battlecruiser "death-ride" was an act of desperation designed to entice the British to direct their fire away from the battleships, the torpedo attack by every available German destroyer forced the British to turn away from the German Fleet. By maneuvering his destroyers in this manner, Scheer was able to protect his capital ships and the British were unable to reengage the Germans before nightfall. It was the effective use of maneuver which saved the German Fleet in the face of 8 to 5 odds at Jutland.

TIMING AND TEMPO

> Timing and tempo is the principle of executing military operations at a point in time and at a rate which optimizes the use of friendly forces and which inhibits or denies the effectiveness of enemy forces. The purpose is to dominate the action, to remain unpredictable, and to create uncertainty in the mind of the enemy. Commanders seek to influence the timing and tempo of military actions by seizing the initiative and operating beyond the enemy's ability to react effectively. Controlling the action may require a mix of surprise, security, mass, and maneuver to take advantage of emerging and fleeting opportunities. Consequently, attacks against an enemy must be executed at a time, frequency, and intensity that will do the most to achieve objectives. Timing and tempo require that commanders have an intelligence structure that can identify opportunities and a command, control, and communications network that can responsively direct combat power to take advantage of those opportunities (18:2-8).

British

The British did not substantially use the principles of timing and tempo against the Germans at Jutland. When they sent their fleet to sea, the objective was to maintain control of the

sea and inflict as much damage as possible on the Germans without undue risk to themselves. The only real timing problem was getting to where the Germans were before they returned to port. Timing became a problem for Admiral Jellicoe when he attempted to deploy his fleet, because the visibility was poor and his intelligence network failed to tell him exactly where the German battle line was. The deployment was effective, albeit late, but it was not a matter of planned timing, just circumstances. When the British did come within shelling range of the German fleet, the tempo of the gunnery duel was maximum effort. But the British did not press their advantage in numbers, did not increase the tempo of the engagement with all available forces, and thus failed to achieve a decisive victory.

Germans

Like the British, the Germans did not make effective use of the principle of timing and tempo at Jutland. Their initial effort to trap Admiral Beatty's force involved maneuver and surprise. The engagement with the British battle fleet again involved maneuver, but timing was not substantially involved. It must be noted, however, that both timing and tempo were employed by Admiral Scheer during the third "battle- turn" away from the British line. He timed the charge of his battlecruisers and destroyers to cover the retreat of his battleships and this obviously increased the tempo of the German attack. But in the main action, the gunnery-duel, the philosophy was maximum effect when in range. This is of course a tempo, but it can only be

characterized as all or nothing. In general, the principles of timing and tempo were not effectively employed by either side at Jutland.

UNITY OF COMMAND

> Unity of command is the principle of vesting appropriate authority and responsibility in a single commander to effect unity of effort in carrying out an assigned task. Unity of command provides for the effective exercise of leadership and power of decision over assigned forces for the purpose of achieving a common objective. Unity of command obtains unity of effort by the coordinated action of all forces toward a common goal. While coordination may be attained by cooperation, it is best achieved by giving a single commander full authority (18:2-8).

British

Although Admiral Jellicoe was vested with the authority and responsibility for the entire Grand Fleet, the principle worked better for the British in theory than it did in practice. Because no single anchorage was large enough for the entire fleet, it had to be physically divided. This physical division led to the main disadvantage that the British had in comparison to the Germans. In one expert's view,

> (The)...separation of the fleet into two main detachments... not only had strategic disadvantages, but also interfered with the training of the entire Grand Fleet as a single fighting force. The tactical training of a fleet can reach its highest efficiency only when there is every-day contact between the commander-in-chief and his flag officers. (As Jutland demonstrated), the British had no unified system of tactical command. To a great degree, the British had to two fleets that operated, even thought, independently (4:106).

In addition to this major problem in the command structure, other problems appeared within the subordinate elements of the fleet.

One significant problem for the British at Jutland involved Admiral Beatty's use (or misuse) of the Fifth Battle Squadron. The problem stemmed from a lack of unity of command.

> It was of utmost importance that such an important unit should be permanently under the orders of one commander. This was particularly important in view of the marked divergence in the tactical ideas of Beatty and Jellicoe. This last minute change (sending the 5th BS to Beatty to replace Hood's 3rd BCS at Scapa Flow for gunnery practice) had some unfortunate effects. Beatty had no time to work this powerful unit into his own organizaton...(4:93).

From these two examples, it is readily apparent that the British suffered from problems within their command structure. On the other side, the Germans did not have similar problems.

Germans

With total command of the High Seas Fleet in Admiral Scheer's hand, and with their entire fleet anchored at Wilhelmshaven, the Germans did not suffer the unity of command problems that the British did. They did, however, suffer from a problem common to both adversaries at Jutland. With such large fleets spread over great distances, and visibility limited as it was, both commanders had to rely on their communications and intelligence networks to effectively command their fleets. On both sides, these networks failed at critical times. Perhaps a real lesson that Jutland demonstrates, with regard to the principle of unity of command, is that its effectiveness is greatly diminished without effective command, control, communications, and intelligence networks. At Jutland, both Jellicoe and Scheer commanded, but very often they commanded in the blind.

SIMPLICITY

> To achieve a unity of effort toward a common goal, guidance must be quick, clear, and concise--it must have simplicity. Simplicity promotes understanding, reduces confusion, and permits ease of execution in the intense and uncertain environment of combat. Simplicity adds to the cohesion of a force by providing unambiguous guidance that fosters a clear understanding of expected actions. Simplicity is an important ingredient in achieving victory, and it must pervade all levels of a military operation. Extensive and meticulous preparation in peacetime enhances the simplicity of an operation during the confusion and friction of wartime. Command structures, strategies, plans, tactics, and procedures must all be clear, simple, and unencumbered to permit ease of execution (18:2-8).

British

From the time of Nelson at Trafalgar, naval tactics had developed to keep pace with the development of naval weapons. Nelson's tactical maxim, "The order of sailing shall be the order of battle" (13:897), no longer applied in the realm of naval warfare in 1916. The torpedo threat of the submarine changed that tactic. But even at Jutland, the naval tactics employed by the British weren't overly complicated. But they did require coordination and cooperation.

The main British tactic evident at Jutland, the deployment of the fleet to the battle line, required coordination and had to be practiced repeatedly. Moreover, the advanced elements had a key role. At Jutland, these advanced elements seemed not to have had a "clear understanding" of their expected actions.

> ...when Jellicoe assumed command, ships might open fire at near-horizon range, so that his fleet had to be deployed whilst the enemy was well beyond this. He depended upon his advanced forces supplying him with the enemy's bearing and distance, formation, course, and speed. Unfortunately, although the Grand Fleet Battle Orders emphasized the need for adequate enemy reports, the majority of Jellicoe's admirals and captains failed to signal them at Jutland (4:98).

This failure at the time of the deployment was repeated time and again throughout the course of the battle and can only indicate a lack of a "clear understanding" among Jellicoe's subordinates of their "expected actions." This shortcoming among various officers of the Grand Fleet played a significant role in the poor showing of the British at Jutland.

Germans

The Germans employed similar tactics at Jutland as the British, but enjoyed better success. Although Admiral Scheer also suffered from a lack of intelligence information and stumbled into the entire Grand Fleet, his fleet performed well in the face of overwhelming British superiority. This points to the conclusion that they were well prepared and fully understood their "marching orders." Even the "battle-turn," never before used in combat, was exceptionally well executed. Undoubtedly, repeated practice of this rather complicated maneuver compensated for its lack of simplicity. In summary, the Germans appear to have executed better at Jutland than did the British. Their tactical success may have been the result of a combination of simplicity, understanding, and practice.

LOGISTICS

> Logistics is the principle of sustaining both man and machine in combat. Logistics is the principle of obtaining, moving, and maintaining warfighting potential. Success in warfare depends on getting sufficient men and machines in the right position at the right time. This requires a simple, secure, and flexible logistics system to be an integral part of an air operation. Regardless of the scope and nature of a military operation, logistics is one principle that must always be given attention. Logistics can limit the extent of an operation or permit the attainment of objectives...(18:2-9).

"It was nothing but the poor quality of British bursting charges that saved us from disaster" (Admiral Hipper).

British/German

The Battle of Jutland was a "come as you are party" for both sides. Therefore, when a battle analysis is conducted, one has only to look at the type and quality of the equipment with which the participants were supplied, and what (if any) replacements were available to offset combat losses. In this light, the logistical efforts of the two sides were mixed. On the positive side, British industry provided almost a 2:1 lead in ships for the Grand Fleet at Jutland. Equally as important, the British enjoyed a 3:1 lead in ships nearing completion (4:103). However, the quality of these ships was inferior in many respects to that of the Germans. Stuart Legg summarized the problem as follows:

> The German heavy guns were of smaller calibre, yet stronger than the British, and their high muzzle velocities, ensuring even flight of shells in tightly-bunched salvos, equalled the performance of more ponderous British weapons. German propulsion machinery occupied less space and weight, allowing heavier protective armour and more elaborate water-tight compartmenting that rendered the German dreadnoughts almost unsinkable. The German steel was tougher, and the Zeiss optical equipment matchless in quality. The British bursting charges were inferior...and the armour-piercing shells would often fail to penetrate when striking at oblique angles (10:143-144).

As a result of these numerous deficiencies, although the British scored 121 hits with heavy shells on German ships, while the Germans only scored 55 such hits on British ships, "...these 55 inflicted much more serious damage" (10:144).

When observed in this light, a clearer picture of the results of Jutland emerges. The British were supplied with a larger number of lesser quality warships, while the Germans had fewer very high quality ships. One American analyst took a stab at making a comparison.

> In general, we believe that, ship for ship, the High Seas Fleet was somewhat more efficient than the Grand Fleet but by no margin that came close to counter-balancing the great British superiority in numbers. Scheer might have been able to fight with even chances of success a British fleet superior by 6 to 5, but certainly not one superior by 8 to 5 (4:518).

In the final analysis, it appears that British numerical superiority dictated not only the strategies of the two opposing navies, but also the outcome of the Battle of Jutland. Whatever the tactical results, a decisive German victory at Jutland was extremely unlikely from the outset given the logistical realities of the affair.

COHESION

> Cohesion is the principle of establishing and maintaining the warfighting spirit and capability of a force to win. Cohesion is the cement that holds a unit together through the trials of combat and is critical to the fighting effectiveness of a force. Throughout military experience, cohesive forces have generally achieved victory, while disjointed efforts have usually met defeat. Cohesion depends directly on the spirit a leader inspires in his people, the shared experiences of a force in training or combat, and the sustained operational capability of a force. Commanders build cohesion through effective leadership and generating a sense of common identity and shared purpose. Leaders maintain cohesion by communicating objectives clearly, demonstrating genuine concern for the morale and welfare of their people, and employing men and machines according to the dictates of sound military doctrine. Cohesion in a force is produced over time through effective leadership at all levels of command (18:2-9,2-10).

British

> "There seems to be something wrong with our bloody ships today" (Admiral Beatty).

This "courageous comment," made after seeing the second (Queen Mary) of his battlecruisers so catastrophically destroyed, has become part of the Royal Navy's immortal tradition. "His officers and men were imbued with the same grim resolution" (2:84). There is no doubt that the British Grand Fleet at Jutland was operated by a highly dedicated group of sailors. Even though the majority of the fleet was based in the bleak Orkney Islands, the morale was high and the sailors itching for a fight. Part of this can be attributed to the fact that these sailors were simply proud to be upholding British naval tradition. But Jutland's numerous examples of selflessness and heroism demonstrate that there was much more. One such incident involved the destroyer Ardent, which was attacked and sunk by German battleships during their night escape to the Horn Reefs. Only two of the destroyer's entire complement survived, one of the survivors being the captain. In the water with the 40-50 of his men who survived the sinking, he talked with many and watched them slowly die in the cold North Sea. He later recounted the story:

> Not a man showed any fear of death and there was not a murmur, complaint, or cry for help. Their joy was, as they talked about it to the end, that they and the Ardent had "done their bit...." All hands fought the ship with the utmost gallantry till she sank beneath them and then met their death in that composed and happy spirit that I am convinced comes to all those who do their duty to the end (2:143).

The actions of the men of the Ardent are an everlasting example of the fighting spirit and cohesion exhibited at Jutland by the

men of the Royal Navy.

Germans

A cohesive fighting spirit was as evident among the Germans as it was among the British at Jutland. Although the German Navy was relatively new, and generally in awe of its British foe with its superb naval tradition, the Battle of Jutland vividly demonstrated how far the Germans had come in developing a navy worthy of German military tradition. The example set by Admiral Scheer, himself, may very well have been instrumental in this development.

Admiral Scheer repeatedly stated after the war that one reason he returned to engage the British battle fleet after the first "battle-turn" was to help rescue the crew of the stricken light-cruiser, Wiesbaden. This idea was laughed at by some critics, but not all, and may be illustrative of the example Scheer set.

> The wisdom of risking a fleet to save a single ship may be debated, but Scheer's motive in returning to the attack shows a loyalty and cohesion in the splendid High Seas Fleet that is most admirable. On a later occasion, Scheer risked his battleships to save a single submarine. The knowledge that a commander-in-chief would stand by every ship in distress with his entire force certainly contributed to the unsurpassed morale of his officers and men. There are times when a magnificent will to fight "regardless of consequences," to use Scheer's words, is more effective than a cold-blooded decision based on pure reason (4:344).

Thus, it can be seen from the lowest ranks of the Royal Navy, to the highest rank in the German Navy, that loyalty and cohesion abounded in the North Sea on that fateful day in late May, 1916.

CONCLUSION

Writing from the U.S.S. Pennsylvania, Commander C. C. Gill, USN., presented, in 1921, a review and analysis of the Battle of Jutland. In his concluding remarks, he discussed the principles of war, as then understood, in light of the episode at Jutland. In words which seem particularly applicable today, he commented,

> Reviewing the tactical features of the action, it is seen that, by both commission and omission, the principles taught by the experiences of history are strikingly portrayed under the new light afforded by the use of modern ships and modern weapons....The conclusion is clear enough, that no matter how great the preponderance of material power, the navy that neglects these principles will be found wanting when tried by the test of battle (7:170).

Chapter Three

THE BATTLE OF JUTLAND

( )

(Seminar Chairperson Guidance)

Course Officer Led

Objective

Understand the principles of war by studying their application (or misapplication) by the British and Germans during the Battle of Jutland.

After this unit of instruction, you should:

1. Have a better understanding of the nature and timelessness of the principles of war.

2. Be able to describe how selected principles were applied at Jutland and the effects that these applications had on the outcome of the battle.

Seminar Topic: Principles of War Analysis of the Battle of Jutland.

Notes for Seminar Chairperson

The battle description and principles of war analysis that accompany this seminar guidance package should be sufficient to generate a lively and productive seminar on the Battle of Jutland. Use the discussion questions that are included here to generate debate, but don't limit the seminar to these questions only. Try to focus in on the timelessness of the principles.

There are obvious parallels between the British and German naval arms race in World War I and the arms race between the U.S. and U.S.S.R. today. It might be an interesting sidelight to spend some time on the quality vs. quantity issue and how that affected the strategies of the belligerents and the outcome of the battle.

Overview/Agenda

The following is a suggested agenda:

0000-0005 - Introduction/Overview
0005-0040 - Discussion
0040-0045 - Wrap-up

Suggested Introduction

From your readings in preparation for this seminar, you are well aware that the Battle of Jutland was the only major naval engagement of World War I. Because of the importance of this battle, its scope, and its outcome, the Battle of Jutland provides an excellent medium for a review and study of the principles of war. The purpose of this seminar is to selectively review the battle by looking at Jutland through the prism of those principles. Throughout this seminar, keep in mind the words of a great aviator, Gen Curtis E. Lemay, who in 1962, made the following statement concerning the principles of war:

> For centuries, successful national military strategies have been based on principles of war learned in equally as many centuries of military experience. Those lessons came hard; and at great cost in lives and gold, and in national power....these principles of war...have been successful for 2500 years. We ignore them at our peril.

Discussion Questions:

1. Lead-Off Question

What were the naval strategies of the British and Germans during World War I?

Discussion

Overall British naval strategy had two components. The first was to impose a "distant" naval blockade on Germany. Secondly, and most important, the British wanted to maintain naval superiority. The Germans, on the other hand, adopted a "fleet-in-being" strategy. By simply having a fleet, the Germans forced Great Britain into keeping an adequate fleet available in the North Sea to counter their own. Secondly, recognizing their inferior numbers, the Germans sought to attrit the British down to parity while avoiding a major confrontaton.

A. Follow-up Question

Jutland has been described as "the battle that never should have been fought." What was it about these strategies that made them incompatible?

Discussion

The British and Germans stumbled into the Battle of Jutland. Although the British wanted an opportunity to confront Germany at sea, they did not want to risk too much, because they were achieving most of their objectives without fighting. The Germans wanted to avoid a major confrontation because they lacked numbers comparable with the British. Had the Germans known what they were about to face, they undoubtedly would have declined to engage the British and would have gone home.

2. Lead-Off Question

Given the naval strategies of the two sides during World War I, how did they translate into objectives at Jutland?

Discussion

British objectives at Jutland generally followed their naval strategy. The fleet action was designed to maintain their naval blockade of Germany by confronting any German ship operating in the North Sea. British tactics employed at Jutland followed their strategy by not being so aggressive as to put their naval superiority in jeopardy. The German objective at Jutland initially was to trap and destroy a small British contingent, and was totally in congruence with their naval strategy of attrition. Once confronted by the entire Grand Fleet, their objective became survival.

3. Lead-Off Question

The Battle of Jutland has been an enigma because it was so "indecisive." What was it about the strategies employed by both sides that made this result almost inevitable?

Discussion

The British employed the strategy of a "cautious-offensive" at Jutland. This translated into such tactics as turning away from the torpedo attack and declining to fight at night. The Germans employed an "offensive-defensive" strategy that sought to avoid battle with a superior fleet. In the case of Jutland, the outcome was probably predictable because the offensive-minded British were not aggressive enough to pursue and corner the escape-minded Germans.

A. Follow-up Question

Given the fact that the British had a vastly superior fleet, did they apply the principle of the offensive correctly if they expected a victory?

Discussion

The principle of the offensive states that "Unless offensive action is initiated, military victory is seldom possble." At Jutland, the British learned that unless "aggressive" offensive action is initiated, victory is seldom possible. After the battle, the British changed their tactics to accommodate this realization:

> ...it was decided in the Grand Fleet, after Jutland, that in the event of the enemy trying to escape, the torpedo disadvantage must be accepted and he must be kept under fire...(turn towards not away from torpedoes).
>
> After the main fleet action,...we had an organization for re-organizing all ships which still retained their tactical speed, and had sufficient ammunition and torpedoes to take up the pursuit relentlessly...(13:884).

From these comments made by a Royal Navy commander, we can see that the British learned from their mistakes at Jutland in applying the principle of the offensive.

4. Lead-Off Question

What admiral violated the principle of mass in the battle and what were the results?

Discussion

When Admiral Beatty left his four battleships behind in attempting to cut-off the German force, he effectively cut his firepower by about 50 percent. Without their support, he lost two of his six battlecruisers, and came very near to losing his

flagship, too. Had all 10 of Beatty's capital ships engaged Hipper's 5, the result might well have been very different.

5. Lead-Off Question

Which side used the principle of maneuver to greatest advantage at Jutland and at what point in the battle?

Discussion

In contrast to the rigid tactics employed by the British, the Germans unquestionably made the greatest use of the principle of maneuver. Twice during the battle when the Germans found themselves in the precarious position of having their "T" crossed, they were able to expertly maneuver themselves out of danger. Although the maneuver was for defensive purposes, the principle of maneuver may be employed either offensively or defensively.

A. Follow-up Question

How might the principle of maneuver been applied offensively at Jutland?

Discussion

With a significant advantage in capital ships, had Admiral Jellicoe deployed his battle line in two wings, instead of one, he might have been able to catch the Germans between his two lines, force the Germans to split their fire between the two, block their retreat, and annihilate them.

6. Lead-Off Question

Was the principle of logistics a factor at the Battle of Jutland?

Discussion

Very definitely. Although Jutland was a "come as you are party," the quality and quantity of the equipment provided to the respective fleets at Jutland had a great deal to do with the relative tactical success of the two sides. (Note that the principle of logistics includes "obtaining" warfighting potential.) The success that the Germans had in inflicting more damage on British ships than vice versa was directly attributable to the high quality of the equipment they were provided. (Note: Refer to POW discussion of logistics for specifics.)

A. Follow-up Question

There is an obvious parallel between the British/German arms race of the early 1900's and the current US/USSR arms race. When quantity was pitted against quality at Jutland, what was the outcome?

Discussion

This is a difficult question because there was no clear-cut victory at Jutland for either side. There are, however, some observations that can be made regarding the issue. The outcome at Jutland proved that German ships were superior to British ships in many respects. (See POW discussion on logistics) Even so, in the aftermath of the battle, Admiral Scheer realized even more fully, that the German Navy simply could not match the Royal Navy because of sheer numbers. The eventual result was the resumption of unrestricted submarine warfare which brought America into the war on the Allied side and sealed Germany's fate. Had the Germans been able to match the British in

quantity, they might have been able to change their strategy, force the British out to meet an equal fleet, and use their qualitative advantage to defeat them. The point here is this: the qualitative advantage that the Germans had at Jutland did not make up for their quantitative disadvantage. One observer believes that the Germans would have equalled the British, overall, with a 6:5 disadvantage, but that they were seriously outclassed at Jutland with an 8:5 disadvantage (4:518).

A. Follow-up Question

What bearing does this have on the US/USSR arms race today?

Discussion

(You're on your own!)

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